# Clinical Demonstrations on PHTHISIS.

*Delivered at the Hospital for Consumption and Diseases of the Chest, Brompton,*

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## LECTURE III.

GENTLEMEN,—When we last met I asked you to consider the differences between an acute sthenic pneumonia and phthisis, and I endeavoured to make it plain to you that the peril of the latter was due, not to the extent of lung-tissue invaded, but to the nature of the deposit. A limited thickening of the lung, a blocking of the alveoli by products—inflammatory or otherwise—which will not disintegrate and resolve, is a phthisis which destroys the alveolar walls and causes their collapse; whereas a pneumonia affecting even the whole of one lung may clear up and leave it unimpaired in all its functions. I will to-day consider the three stages of consumption, and examine our means of recognising them in practice, and ask your attention to the various progress and termination of cases according to their stage, and especially how localisation of the morbid product influences the issue.

The *first stage*, which consists in a filling up of the alveoli by inflammatory or tubercular products, is recognisable by the signs which indicate altered physical conditions of a portion of the lung. In health we hear the gentle vesicular murmur caused by the entering air, followed by an equally gentle expiration-sound as the air is expelled, and the percussion-note is even on both sides. The voice scarcely resounds through the elastic air-tubes, but communicates a gentle purr or fremitus to the hand when applied to the chest-walls. But if a portion of lung be solidified surrounding a pervious air-tube all this is altered. There is a dull note on percussion, because less air is under the finger. The entering air-sound may be *feeble*, *harsh*, or *jerky* and interrupted; the expiration-sound is prolonged unduly; while the voice-sounds are propagated to the ear as through a tube, and the heart's sounds are also conducted. Now these are common to the first stage of phthisis, but why? All that auscultation can tell you is that a portion of the lung has several of its physical conditions altered, but of the nature of the product which so alters them it can tell you nothing. That knowledge can only come to you by a study of the other relations of your case. Let us try these alterations by their meaning.

*Feeble respiration* may be due to obstruction in one or more bronchioles, by pressure on their walls or narrowing of their calibre; by any obstacle to air entering, as a tumour or a foreign body in the bronchus; by anything which increases the distance of the lung from the ear, as effusion into the pleura or by a thickened pleura; and by emphysema which impairs the elasticity of the lung.

*Harsh* breath-sounds may be due to thickening of the walls of the air-cells, whereby their elasticity is impaired, by induration causing pressure on the alveoli, and by dryness of the mucous membrane of the bronchi.

*Prolonged expiration* depends on a difference in the density and an alteration in the elasticity of the lung, whereby a sound naturally feeble is developed and rendered more audible.

The *bronchial* or *tubular* character of the breath-sounds and voice is caused by the increased conducting power of the solidified lung, and excessive audibility of the heart-sounds means the same.

The *wavy* or *interrupted* inspiration-sound is only valuable when permanent and conjoined with other sounds which indicate solidification, as a whiffy or tubular character of breathing. It is probably caused by alterations in the elasticity of the alveoli and their irregular expansion.

Now, if you can group several of these signs in any one case, and if dulness coexist and the space presenting these phenomena be limited in extent and one-sided, you may be sure that some solidifying alteration has taken place in and around the alveoli of that part of the lung. But if this condition be preceded by slight loss of flesh, subfebrile symptoms, and with dry cough or a scanty flocculent expectoration, you may be pretty sure that you are dealing with the early stage of phthisis. But do not be in a hurry to condemn your patient. You only know his present state, and the future is masked, or may be altered by various other agents than those now evident to you. This was the mistake of the early stethoscopists, who thus often brought an invaluable discovery into undeserved disrepute. Physical evidence is always true, but the inferences may not always be correct. I have pointed out to you that even from this state of things there may be recovery; the alveoli may collapse, the chest-walls fall in, the morbid product in the lung undergo degenerative change, dry up, and be expectorated, and a little flattening and dulness alone betray the nature of the attack.

I show you here the vertebra of a rabbit which a young lady got impacted in her right bronchus, where it remained for eighteen months, giving rise to all these physical signs, and also to the hectic and wasting of phthisis, as well as to hæmoptysis. But one day she expectorated the bone which I produce, and all her symptoms ceased. I yesterday examined her: it is now four years since the accident, and she has a flattened spot under the right clavicle, with high-pitched, almost whistling inspiratory sound, long expiration, dulness, &c.; and no doubt there is a damaged piece of lung here, collapsed and contracted; but she need not fear a relapse of her symptoms, for the cause is removed. And so of the block of the lung in phthisis: it often happens that there is no recurrence of the local disease or symptoms, if the indispensable condition be also present, that there be no renewal of the constitutional disorder which preceded and probably caused the attack on the lung.

It is pretty evident, then, that a *first stage* of deposit in the lung may remain quiescent for an indefinite period, and I have had such under my notice again and again for fifteen or twenty years.

The breaking up of such deposit—its degeneration, that is, fatty or caseous,—constitutes the ordinary *second stage* of phthisis. If this process be limited to the inflammatory or tuberculous products in a small portion of the lung, it is, although often attended by much hectic and wasting, a step in the disease which may be so defined and so little involve surrounding portions of the lung that the symptoms may subside, the foreign matter be cleared out of the alveoli, and only a damaged spot remain, in which doubtless the alveolar walls have been destroyed, and collapse has necessarily occurred. In this portion of pulmonary space may be found any of the degenerated results of inflammation or tubercle, caseous, calcareous, or fatty. While this breaking up is advancing a moist crepitus of more or less large bubbles is characteristic of the change, but the signs of cavity—that is, of a more or less large excavation—are wanting. The conditions causing solidification are reduced, and the voice is no longer bronchial, nor the breath-sound tubular, but a certain amount of dulness remains. It is a state in which air enters more freely than in the previous stage, but all purely vesicular breathing is permanently lost; for you have compressed, broken-down alveoli, infiltrated products in and around them, the elasticity of the lung gone, and the bronchioles conduct the entering air into a disorganised structure with semifluid contents. From these altered mechanical conditions we can readily understand the moist crepitant sound characteristic of the lesion.

But supposing the local disease to be retrogressive, and not involving, by fresh inflammatory or other deposits, an increased number of alveoli, we have then new and interesting conditions. The softening or fluidifying degenerative changes have ceased. Some part of the alveolar block has been removed, but some remains, and it is mixed with the débris of the injured structures. The fibrous changes also, of which I shall have occasion to speak more in detail, now begin to come into play; and a proliferation of the fibrous, interlobular, and pleural elements binds together, and even begins to wall in and compress, the altered lung-tissues. Should the purely degenerative changes undergo arrest, and a more or less dry residual caseous or calcareous matter

represent the former morbid product, we have a state of things which physically accounts for the altered sounds. The *moist crepitus* becomes a *dry crackle*, and you have just seen out of what materials the sound is made. At the same time the chest-walls flatten, their movements are manifestly limited over a more or less large surface, and of course the dull percussion note remains—nay, becomes intensified,—for the tissues underneath have been rendered more solid and condensed. At this time your patient gets better; he coughs less, loses the night-sweats, and recovers flesh and strength. From these altered conditions of the system and of the physical signs we may see at once the importance of the cessation of all inflammatory action in phthisis. Inflammation is perhaps the most destructive of the agents which break up the lung, and, if congestions be absent, a period of tolerance is very commonly arrived at, during which reparative changes immediately begin. Thus in practice you will find that a great deal of the crepitant rhonchus which is commonly attributed to the presence of softening tubercle may disappear under treatment adapted to relieve congestion—being, in fact, due to inflammatory exudations which are capable of resolution and removal. I would have you notice that softening or ulcerative changes in the lung commonly begin at the back part of the apex, so that the characteristic sounds of moist crepitation will often be found in the supra-spinous fossa, although absent in the subclavian region. As regards the numerical frequency of the chronic quiescent second-stage cases, I made notes of 203 which had lasted for sixty-seven months, and at the end of that period 132 were still in a stationary condition.

I must detain you here to point your attention to a form of chronic disease exhibiting the physical signs of the second stage of phthisis, which I believe I was the first to describe; and I have named it the *chronic diffused* form of phthisis, this expression having relation to the localisation of disease in the lung. It forms an important variety of the disease, especially as regards the prognosis, for I have been rarely deceived when assigning a considerable chronicity to cases of this class, and a fair number of them are always to be seen in our wards. The subjects of this variety of disease present on the whole a favourable aspect and history. They are commonly men (2½ males to 1 female), of large, well-made chest, and without hereditary tendency to phthisis; the age between thirty and fifty. They are the subjects of cough and expectoration, with occasional hæmoptysis. The emaciation has been progressive up to a certain point, but stops short of excessive waste. The febrile attacks are not severe nor prolonged, and the temperature soon falls to a normal standard. On examining the chest, you are struck with its good development and fair measurements, especially as contrasted with the narrow flat chest and high shoulders of the typical forms of phthisis; nor are the scapulæ alar. The movements are but slightly impaired, although a careful observation will detect lessened expansion *over a large area* of one side. It is commonly unilateral, but not invariably so. The percussion note is moderately dull over a like large space, not absolutely dull over a small part of one apex. Here a diffused, more or less moist crepitus is heard, increased by cough; and you are surprised at the extent over which the physical signs are spread. The patient's chief complaint is of dyspnœa. These cases very rarely indeed go on to the stage of cavity, and are free from the chances of pneumothorax. Pleuritic effusion is also an uncommon event in their course.

I believe their pathology to be that they are examples of a deposit spread over the surface of the lung rather than massed on one spot, and hence their non-liability to form cavity. The alveoli of a large surface tract of lung are no doubt impacted, but the inflammatory exudations which in ordinary phthisis form the connexions between groups of damaged alveoli, are not present; and thus, when degenerative softening changes take place, a large superficies of lung is affected, but the burrowing destructive ulcerations by which the depths of a lung are broken up do not occur, for much healthy vesicular structure underlies the diseased surface. For this reason also the movements of the chest are little impaired, and, as fibrous changes are not undergone till a late period in the history of the case, we find neither retraction of the chest-walls nor the displacement of the heart and of the opposite lung so commonly observed in the latter form of phthisis. The character of the crepitation is rather dry than hurried, and pleural friction-sounds are not uncommon. Patches of tubular breath-sounds may be occasionally observed, commonly near the middle of the lung, but they are limited in extent, and generally clear up. The opposite lung becomes affected in a large proportion of these cases, but the extension is slow, and the symptoms are subacute. I have carefully noted 149 examples of this form of disease, in 133 of which the second lung ultimately became diseased, but with a like diffused form of deposit. The larger number lived for long, indefinite periods, often for years. The invasion of the disease had commonly been insidious, but was occasionally acute, the patient subsiding into the chronic condition I have been describing. Their termination is generally due to intercurrent pneumonia, and they do not end with hectic and diarrhœa, like ordinary phthisis. I think there is little doubt that the rheumatic constitution tends to this form of disease. Out of 146 of my cases, either heart disease or rheumatic fever had existed in 36, or about one-fourth of the whole.

In offering an opinion, then, on a case presenting the characters of large chest with the signs of diffused deposit over a considerable space of one lung, febrile symptoms being in abeyance, and the case already chronic, with but moderate waste of flesh and unimpaired digestion, you will be safe in giving a favourable prognosis as to time. While knowing the liabilities of this peculiar variety, you can be both forewarned and forearmed against the attacks of pneumonic congestion which are likely to occur. In this class of cases you have an instance of the *localisation* of the diseased product affecting the character of the affection and the result; just as I said, in describing the first stage, that the *nature* of the deposit blocking the alveoli was of more importance than its extent.

Now the *third stage* of phthisis (or excavation) derives its characters and bears an import from these two same features—the *nature* and *localisation* and extent of the inflammatory or tubercular product in the lung. Sometimes rapid disintegration occurs and large quantities of matter are thrown up, the patient suffering extreme hectic and emaciation. If this be the breaking up of a dense mass of solid lung at the apex (a catarrhal pneumonia), a cavity is rapidly formed, and while this process is actually going on you can say little as to the result. The danger is not in the rapidity of the degenerative process, which melts up all the tissues of the lung, but in its extent. If there have been solidified, blocked masses of pulmonary tissue in two or three parts of the same lung, and if these become connected by inflammatory infiltration, and under a continuous ulceration, you will have a large, irregular, burrowing, anfractuous cavity, the ulcerative process extending from above downwards, so that almost the whole lung is destroyed. Often enough, during the destructive process, either from secondary poisoning, or from an extension of the constitutional disorder affecting the second as it originated the disease in the first lung, you will detect moist sounds on the opposite side, with continuous extension downwards. These are cases of rapid "galloping" consumption. They leave us no power, and the patient sinks.

But there is another form, where the disease is limited to one apex and stops there. And when the disintegrative softening occurs, a mass of solidified lung is cleared out and a cavity formed—at great cost, it is true, to the patient; but if the disease is isolated, and the remainder of the lung is sound, you may have what is called a *limited cavity*, and the patient may recover a very fair amount of health.

The progress of softening and clearing out of the diseased mass is generally very rapid and the hectic extreme; but if you can ascertain that the subjacent parts of the lung are sound, and that extension from the apex downwards is not taking place, you may await the result with patience, and even with hope. When the cavity is well formed expectoration gradually lessens, while the febrile symptoms subside. Immediately below such a cavity the lung is consolidated, and in this spot you have a favourable opportunity of studying the physical signs of the first stage—that is of blocked alveoli. The more defined the signs of cavity the better; nor is its size apparently of great importance, for it is amazing how large an extent of lung may be lost provided there be not an extension of morbid action around it, and yet the patient recover health. In Prince of Wales's ward you have an admirable example of this variety of cavity. C. C——, clerk, aged fifty-three; no hereditary

tendency to chest disease. Is one of nine brothers and sisters all living. One year ago he was attacked with cough and severe fever, accompanied by copious sweating. He then had abundant fetid expectoration for eight weeks. In August he was an inmate of St. Thomas's Hospital, where he recovered so far that cough and expectoration ceased altogether, and sweatings, &c., stopped. He partially recovered weight, and is now 8 st. 3 lb. At present he has only morning cough, and slight expectoration, occasionally tinged with blood. He has but little dyspnœa; sleeps well; digestion fair; temperature normal. The right chest is dull and flattened to the third rib. Over this space there are cavernous blowing and pectoriloquy, with occasional distant humid crepitus. Below this the breath-sounds are deficient; the base is slightly dull. Posteriorly there is loud, dry, cavernous blowing, and well-marked pectoriloquy over the upper fourth of the lung. The rest clear. The left lung reaches to right margin of the sternum. Since he entered the hospital he has steadily recovered health and strength, and improved in weight. He scarcely expectorates.

As time goes on in these cases the heart is drawn to the affected side, and often is found to the right of the right nipple; the liver and diaphragm become drawn up, and the chest-walls retract considerably. They are more common on the right side, and more favourable. In sixty-eight cases under my care, two-thirds being males, fifty were on the right side and eighteen on the left. Six only had hereditary taint. Thirty-five presented absolutely dry signs. In seventeen only were there signs of incipient disease in the opposite lung, and in one only was there crepitation in the other lung. Fifty-five out of the sixty-eight had improved on leaving the hospital. Dr. Bennett has recorded eighteen cases with like conditions. Nine had the right lung affected, and only three were females.

My observations give to this class of cases a duration of life *double that of the ordinary forms of phthisis*, and I have watched some of them for twenty years. As regards the frequency of their occurrence, I had 68 circumscribed cavities out of 4580 cases of phthisis. Their much more frequent localisation in the right side has, perhaps, some relation to the division of that lung into three lobes. You will also remember that the right bronchus is shorter, more open, and allows the contents of a cavity to be more freely emptied. There is something in this; for the most intractable cases of cavity I have seen are those deep seated in the lung, with long, probably fistulous, communications with bronchial tubes of any size. You will remark of the limited cavity that it surely but slowly undergoes retraction, and in so doing it is assisted by those fibroid changes of which I shall speak to you at our next lecture. It is lined and walled in by fibroid tissue. Often you will find thick bands consisting of this natural mode of contracting and obliterating the vessels of the lung passing across it. The pleura is thickened around the excavation, and sends prolongations of fibrous tissue through the lung. The chest-walls fall in, the other chest organs are drawn up to fill the lessened pulmonary space, and nature is evidently attempting to close and heal up the cavity. Does it ever heal? Certainly it does, of which we have seen here many examples, and in your post-mortem examinations you will daily see cicatrices of the lung. I have myself watched the formation of a large cavity in the right lung, and now, at the end of ten years, there is no sign of excavation, but a flattened retracted side and deficient breath-sounds only, while the health has perfectly recovered. But it is far more important that you should recognise, and be able to offer the great help of a favourable opinion to a large number of individuals with limited cavity than that you should remain dissatisfied because you cannot demonstrate during life the occurrence of cicatrisation in the lung. It is a very long step towards a cure of consumption when your patient ceases to expectorate, and regains flesh and vigour. Time was when such cases were condemned lives—"last stage of all, cavity!" And, surely, it is a great advance to have recognised that in such instances nature is daily and hourly advancing towards a cure, even if she never arrives there, instead of descending lower and lower in the progressive steps of ulcerative disease of the lung.

I will sum up what I have to say to-day by a short statement of the *dangers* and of the *prognosis* in cases of cavity in the lung.

The two great dangers are *hæmoptysis* and *pneumothorax*, or such a perforation of the lung as permits the escape of air into the pleura. Each of these events, grave in themselves, and the results, we shall consider on another occasion; but to-day I would impress it on you that the dangers in cavity are mechanical rather than vital. The hæmorrhage is due almost always to aneurism of a small branch of the pulmonary artery, often from the side of the vessel which is exposed, and therefore not supported by surrounding tissues. Such bleedings are passive, and not congestive, as in cases of pulmonary apoplexy, pneumonia, and the like. The pipe is broken, and out rushes the blood. I have told you how nature protects herself against such an accident by increase of the fibrous tissue of the lung, which surrounds, compresses, and often strangles the exposed vessels. But sometimes a minute's dilatation occurs in an unprotected point, and hence the hæmorrhage, which is often so rapid as to be fatal in a few minutes. The other danger in cavity is of a like nature. Air escapes instead of blood, through a minute opening in the pleura, and you have a pneumothorax. If these fibrous changes which involve the pleura are not perfected, the strain of severe coughing, or even of movement of the arm, may produce the rupture. This is also a very serious lesion, for with each expiration a fresh quantity of air is forced into the pleural cavity, the lung is compressed and forced to collapse unless it be tied down by adhesions, and the sudden loss of respiratory space is sometimes so great as to cause death within a few hours. These are the two grave accidents to which the subjects of cavity are liable, and of course you will see at a glance that if the excavation in the lung be perfect, the surrounding tissues condensed by fibrous proliferation, and a tough lining membrane be furnished from the same source, the liability to either event is infinitely lessened and the patient may live secure.

There are other dangers of a less degree which should be stated. An ordinary bronchial attack may affect the extensive secreting surface of the excavation, the patient may take cold in the cavity, and profuse secretion is set up; but only for a time, and this will yield to appropriate remedies and rest. It is one reason for advising a temperate climate for such cases, and undoubtedly they do best when so cared for.

For the reasons I have stated these limited cavities do not often end by breaking up the lung surrounding them. They are walled in by thickened pleura and tough lining membrane and fibrous bands of tissue around the air- and blood-vessels. Direct extension is, therefore, not one of their dangers. If the disease be lit up afresh, you must look in the apex of the opposite lung for it, or in the base of the same lung, or occasionally, as I long ago pointed out, in a *diagonal* direction to the base of the opposite lung. That which is worth remembering now, however, is that they do not often extend directly by destruction of the lung-tissue immediately surrounding.

Let us just review the elements for prognosis in these various forms of phthisis of the ordinary chronic kind. Continuous progressive phthisis owes its destructive character to the *nature* and *extent* of the deposits in the lung. Inflammatory or tuberculous products, prone to rapid degenerative change, scattered through the lung almost in continuity, are of necessity fraught with the highest danger; for in the stage of softening all the pulmonary tissues are involved, and the patient is exhausted by irritative fever before any of the protective fibrous changes can be set up.

If the deposit in the lung be limited in extent, unaccompanied by inflammatory exudations, and of a nature to resolve or undergo degenerative changes of the calcareous nature you may have chronic phthisis, first stage, with but moderate damage to health. In the stage of softening, if the disease be limited in extent, and the changes be of the drying character, with absence of congestions around the deposit, a long pause may occur after the severe symptoms which generally usher in this stage.

In the *diffused* deposit in the lung spread over a large surface, with extensive but superficial physical signs, occurring in individuals of large chest, and from the fair movements and absence of great retraction of chest-walls, evidently not involving the deeper tissues of the lung, you have good reason for assigning a long term to the cases. But in this, and in all forms of phthisis, irritative fever should be absent before you enter on a favourable pro-

gnosis, for hectic means inflammatory action and exudations prone to destructive changes, and is the most formidable agent we have to combat in phthisis.

Should the stage of *cavity* be reached, you will remember that a well-defined limited cavity, with physical conditions well marked and the signs unmistakable, is much more favourable than an irregular, ill-defined, burrowing series of excavations, with a limit hard to define, but where cavernous sounds shade off into humid crepitant rhonchus, down perhaps to the base of the lung. For the latter condition means a lung much infiltrated with morbid products in various stages of disintegration, and the character of *limit* is wanting. Here you will observe the important part which fibrous changes play in phthisis, for they bind down and circumscribe disease and stop extension. In the last stage of phthisis, when no vesicular lung remains, you will find that all which is left to represent lung in the post-mortem room is fibrous tissue. The well-defined cavity, however large, may be regarded with less apprehension. It has its dangers, as I have pointed out; but when excavation is accomplished there is generally a long pause, often a great recovery. It is an achieved event in which disease has done its worst; and if the remaining parts of the lung are sound, and fever has ceased, the patient may live for years in comparative safety. The best forms of such cases occur in the male sex, and on the right side; and, in estimating their chances, pay minute attention to the absence of the signs of extending disease, and to the perfection of the insulation of that which exists.

## THE SPHYGMOGRAPH IN MEDICINE.

### OBSERVATIONS ON THE TRACINGS FURNISHED BY MANY CASES OF DOUBLE AORTIC MURMUR.

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THE familiar comparisons by which the pulse of aortic regurgitation is described, as appreciated by the finger, prepare us to obtain such tracings as are given by Dr. Burdon-Sanderson (Fig. 6, p. 73, "Handbook of the Sphygmograph"; and Dr. Galabin, Fig. 5, *Journal of Anatomy and Physiology*, vol. x., p. 318). These were taken from patients who had free aortic regurgitation. But very little experience soon shows us that such tracings are rather exceptional even in cases where there can be no doubt about the diagnosis. It is far more ordinary to obtain tracings in which tension-signs are very prominent, and which are more indicative of morbus Brightii than of morbus Corriganii. It is true that by varying the spring pressure we may at length succeed in obtaining tracings more or less corresponding to the typical form, but unless my experience is very misleading, there can be no question that flat tops and delayed tidal waves are far more frequent in the condition in question than in any others, excepting those of positive arterial degeneration or morbus Brightii. Lorain's figures show that he has observed this point; many of them might well stand for the tracings of very high tension pulses (*vide* 340, 343, 349). To explain how it comes that the tracings of a pulse, reputed commonly as "collapsed" and "empty," so often resemble that of a rigid artery seems no easy matter. Perhaps, however, the following considerations may help towards the solution of the difficulty. In the cases of double aortic murmur commonly met with there exists more or less obstruction to the entrance of blood into the artery, as well as more or less regurgitation from the artery into the ventricle. The obstruction is encountered by the hypertrophied left ventricle, which, in the majority of cases, acts powerfully, and drives so large and so forcible a wave of blood as to cause considerable distension of the larger vessels. The regurgitation is produced by the elastic resilience of the walls of the larger arteries. It would be equal in force and effect to the flow of the systole, were it not that an open channel exists towards the capillaries, by which by far the larger part of the blood expelled by the ventricle undoubtedly escapes. A certain quantity, however, is returned into the ventricle by the contraction of the elastic arterial walls, and by its pressure upon the sides of the chamber dilatation and hypertrophy are induced. The pressure thus exercised must be much greater than the normal, which is little more than that produced by gravity; whereas that of the regurgitating blood equals that of gravity *plus* that of the arterial systole. This distending force must operate as a powerful stimulus to the next contraction, so that the ventricle is continually kept in a state of over-excitation. This forcible systole, together with the larger charge of blood impelled into the aorta, must cause undue distension of the arteries, which is evidenced by their enlargement, their violent pulsation, and sometimes by their tortuousness, even in the young.

It is further to be considered that if the lesion be such as to make the amount of obstruction considerable, it will *pro tanto* lessen that of regurgitation, and so the effect on the tracing will be to assimilate it more or less to that of pure obstruction. This, as far as I have had opportunity to observe yet, is characterised by a low rise and a top either flat or sloping upwards—a tracing eminently indicative of tension. This will necessarily be so, for the systole of the ventricle which has to overcome any notable amount of obstruction at the aortic orifice must be more gradual or prolonged than that of one which meets no resistance. In consequence of this the amount of arterial distension will be lessened, but the period during which it continues will be lengthened (*vide* Case 7 tracing). In cases, therefore, where systolic murmur is heard in the neck and at mid-sternum, but diastolic murmur is absent above the sternum, it is very probable that the tracing will present more the features of tension than of sudden arterial collapse.

Of course, if any obstruction exist in the arterioles or capillaries, such as we must believe to have been present in Case 1, the signs of arterial distension will be rendered still more apparent. It is worth remarking, as showing the tendency even in free aortic regurgitation to the production of tension signs, that in both the typical tracings referred to above—viz., those given by Sanderson and Galabin—there is a distinct predicrotic notch, such as would not exist in a normal tracing.

CASE 1. *Double aortic murmur; anasarca; pulmonary apoplexy;—at autopsy, aortic valves tolerably healthy; aorta much dilated and very atheromatous; kidneys tolerably sound.*—G G——, aged forty-nine, male, admitted April 19th, 1876. Has been out of health five or six months, his chest has been weak, and he has had cough three or four years. He got fresh catarrh three months ago; has not been able to work since; both legs are very much swollen. Pulse 100, feels full, large, jerky. Loud double murmur at mid-sternum and xiphoid and at upper sternum; loud diastolic murmur at nipple-line in fifth space; breath markedly of urinous fetor. Temperature 98°. Lies down well; urine not albuminous probably, but this is open to question. Compound jalap powder every morning; mixture containing citrate of potash and five grains of nitrate of potash three times a day; warm bath in the evening.

April 20th.—Breathing very feeble in both backs, especially at lower parts; much mucous râle in upper, less marked in lower; has spit up some small masses of blood; face pale. Had an attack of semi-syncope this morning; a second occurred during the visit. His pulse immediately before seemed good and full, but while sitting up to be examined it became very small and weak, and his countenance indicated impending syncope. He was laid down and brandy given, and he rallied completely, but in the night another attack came on, and he died at 1.15 A.M. of the 21st.

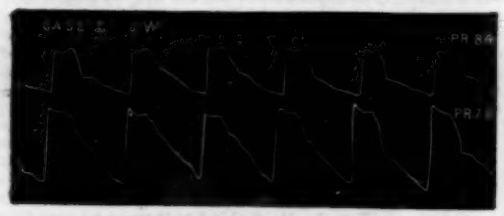
*Post-mortem examination.*—A large amount of turbid yellow serum in the right pleural cavity. Right lung contained at apex a block of pulmonary apoplexy, well circumscribed, as large as a walnut or rather larger; the rest of this lung was œdematous. Left lung tolerably healthy; at its apex there was a mass of old cretaceous tubercle, of the size of a pea, enclosed in a thick envelope of fibroid tissue; there was also cretaceous matter in the bronchial glands, but no miliary tubercle anywhere. The heart was enlarged, and weighed 24½ oz.; its muscular tissue was of a good red colour, and showed no sign of fatty degeneration. The right cavities were full of black clot; the valves healthy. The left valves also were tolerably efficient; the sigmoid retained water poured over them pretty well; and the mi-

tral were not much altered, nor was the orifice dilated. The aorta was very much dilated at its origin, and in all its thoracic extent; at one part, a little below the termination of the arch, its posterior outer wall was bulged considerably, forming a sort of elongated sacculus, the interior of which was lined with a deposit of pigmented fibrine. The coats of the aorta were highly atheromatous (endarteritis deformans). The liver weighed 61 oz., was highly nutmeggy and fatty. The kidneys looked small; lobulated; surface after removal of capsule slightly granular; each weighed 4½ oz. The renal tubes were not broken up, but were often much infarcted with granular fatty epithelium. The spleen was rather small, and dark; weighed 6½ oz.

The arterioles of the subcutaneous tissue of the calf appeared, under the microscope, to have thickened walls, and sometimes to have a dense outer fibrous investment; thickened adventitia. I could not, however, feel certain whether the majority of them were merely contracted or actually sclerosed.

In this case it seems to me a matter of certainty that the heart had contended against obstruction in the arterioles until it was exhausted, and finally succumbed. The general dilatation of the aorta and the incipient aneurism are proofs of the existence of abnormal pressure in the arteries. The aortic regurgitant murmur was evidently not dependent on destruction of the valves, but on dilatation of the orifice, so that the flaps were unable to close it. The diastolic murmur heard at the fifth space must have been generated at the aortic orifice, and conveyed to the apex. The information respecting the urine is unfortunately defective; it is most probable that it was not albuminous, but even so the existence of uræmia is not thereby disproved, especially as the breath had decidedly a urinous fetor. The autopsy showed that the kidneys were not in an advanced stage of disease, but still they could not be pronounced quite healthy by any means. The cause of the obstruction of the arterioles or capillaries was not clearly revealed by microscopic examination, but that such a condition did exist there can be no question. It is unfortunate that I had not time to take a tracing, but no one can doubt what its form would have been, especially as this deficiency is in a measure supplied by the other parallel cases. Dr. Gordon speaks of cases of this kind being familiar to Dublin observers.* In London they are hardly so frequent I think, as, out of five hospital physicians whom I questioned, only two remembered to have seen such.

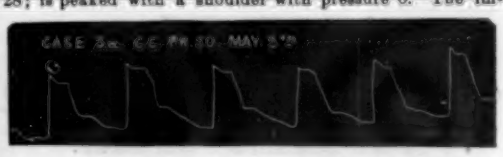
CASE 2. *Double aortic murmur; pulsation at sternal notch; weak breathing in right back; no dropsy; flat-topped tracing.* — J. W——, female, aged forty, admitted November 12th, 1875. Had been ailing two years, suffering with indigestion badly; had copious hæmatemesis a year ago, and has been bringing up smaller quantities (streaks) very often; has lost much flesh, and is thin; has much pain after food, mostly at left side of abdomen, and tenderness at left hypochondrium and epigastrium; tongue clean; bowels very costive, but open yesterday; catamenia are scanty, and occur irregularly; legs and feet never swell; does not always sleep well; breath short on exertion; lies down well now, but can't always; breathing in backs quiet and weak; it was subsequently distinctly ascertained to be permanently



more free and full in left back than in right, and the resonance in the left was better also. Pulse 88, hardish, of fair force, compressed by 220 grammes; the radial tracing in both wrists was markedly flat-topped, the rise was high. At the apex in the fifth space there was a systolic murmur, and on the left side the same followed immediately by another less loud and long, which was not synchronous with the carotid impulse, like the first. At the mid-sternum and xiphoid there was a loud double murmur, both divisions of about the same length; this murmur was heard less loud at both second cartilages. A thrill was felt in the second and third right spaces. The apex beat was in the fifth space, just outside the vertical line. The murmurs heard in the left side became gradually louder, as they were traced upwards from that site to mid-sternum. The right chest front was notably more arched (bombé) than the left, but was resonant. The right chest measured 16½ in., the left 15½ in. The urine was pale, sp. gr. 1011, not albuminous; deposited a moderate sediment of epithelial scales or mucous corpuscles; no renal epithelium or casts. Nearly three weeks later it deposited a notable amount of uric acid, with mucus or pus corpuscles, forming a sediment of some magnitude. My last note was made Dec. 2nd, when the pulsation of the aortic arch was felt very markedly at the sternal notch; the finger seemed to touch the artery; the urine still deposited uric acid. She took muriatic acid and tannin, with some benefit to her gastric disorder; nothing else.

The marked aortic pulsation at the sternal notch, the character of the radial pulse, and the flat-topped tracing were not easy to reconcile with the existence of a well-pronounced regurgitant aortic murmur, supposing the latter to depend on partial dilapidation of the valves. The urine gave no evidence of renal disease, there was no dropsy, and there was therefore no apparent cause for the existence of arterial tension in excess. Still the evidence of the tracing was positive, and it was constant. The lessened breathing on the right side might be attributed to the presence of an aneurism of the arch on the right bronchus, and this was a possible result of increased arterial tension. I could not harmonise the phenomena for want of a due appreciation of the modifying effect of the obstruction on the aortic regurgitation, and so the case remained for a while obscure.

CASE 3. *Rheumatic fever three months ago; double aortic murmur; rhythm of heart irregular; marked aortic pulsation at sternal notch; no albuminuria; no dropsy; flat-topped tracing.* — C. C——, aged seventeen, female, engaged in a laundry; admitted on May 3rd, 1876. Parents both alive and in good health. Has five brothers and two sisters, who are also well. Lives near Kensal-green. About three months ago she had rheumatic fever badly, and since that time has been troubled with shortness of breath and palpitation of the heart, and has soon become tired after any exertion. Complexion fair; skin moist; perspires very freely in the axillæ and feet; tongue clean. Pulse feels somewhat hard and jerky; is just visible in both wrists. Urine: specific gravity 1020; not albuminous; copious. Temperature normal. Heart's impulse felt at fifth space, a little inside vertical nipple line, also at xiphoid. Impulse is also evident at left second space, close to sternum, and is very evident to the finger at the sternal notch. Heart's rhythm irregular, the orderly succession of beats being interrupted frequently by hurried brief contractions. A systolic murmur is heard at left side, a double one at mid-sternum and right second cartilage, a loud rough systolic blowing at right neck, and same less loud at left. The systolic murmur in the left side is replaced during the hurried beats by a sharp, loud tension sound. Lungs are fairly free. Tracing taken on May 5th is very markedly flat-topped with pressure 50; shows a higher rise with pressure 28; is peaked with a shoulder with pressure 0. The im-



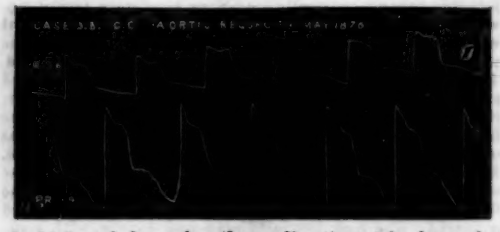
pulse at second left space is well marked during expiration, but is hardly seen during inspiration. Appetite bad. Simple diet, beef-tea, milk, eggs, and four ounces of port wine ordered; also a mixture of fifteen minims of solution of muriate of iron and fifteen minims of spirit of chloroform, to an ounce of water, three times a day.

May 8th. — Is a little better. Rhythm of heart less irregular; sounds as before.

She improved so much that she was able to walk up and down the lofty flight of stairs leading from the ground-floor to the first-floor fairly well, and went out about the end of May. She soon, however, lost ground again.

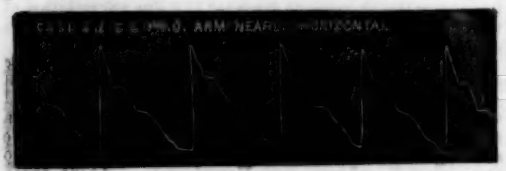
* Vide Dublin Quarterly Journal of Medical Science, 1865, vol. i., p. 98.

Numerous tracings were taken in this instance with pressures varying from 0 to 56, but all showed more or less indication of undue arterial pressure. The effect of posture of the arm was very marked, elevation rendering the

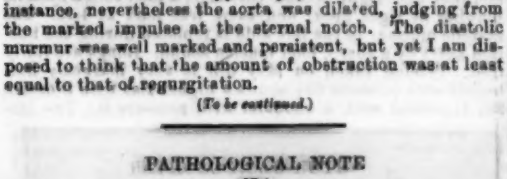


rise high and deepening the predicrotic notch, depression lowering the rise and converting the notch into a nearly flat shoulder. The height of the rise is evidently dependent

on the amount of arterial expansion, as, indeed, I believe it always or almost always is, and is therefore necessarily greatest, *cæteris paribus*, when the artery is emptiest just



before its diastole. Elevation promotes emptying of the vessels, and hanging the arm down repletion, so that there is more room for expansion in the first and less in the second.



There was not much hypertrophy of the heart in this instance, nevertheless the aorta was dilated, judging from the marked impulse at the sternal notch. The diastolic murmur was well marked and persistent, but yet I am disposed to think that the amount of obstruction was at least equal to that of regurgitation.

*(To be continued.)*

## PATHOLOGICAL NOTE OF A CASE OF POPLITEAL ANEURISM, TREATED SUCCESSFULLY BY THE APPLICATION OF AN ESMARCH'S BANDAGE.

BY WALTER REID, M.D.,
STAFF SURGEON, ROYAL NAVAL HOSPITAL, PLYMOUTH.

THE case to which this note refers was reported in THE LANCET of Sept. 25th, 1875; and in a recent pamphlet I gave some further details, with fuller explanations of the principles upon which the treatment was conducted. It is therefore sufficient to say, at present, that on the 11th of September, 1875, a case of popliteal aneurism was cured in fifty minutes by the application of an Esmarch's bandage, and, further, that the cure remained complete. The aneurism ultimately ceased to give either trouble or inconvenience, and the remains of it could only be distinguished by comparison with the opposite limb.

But, unhappily, the general health of the patient had been broken down by much arduous service in the tropics. He became subject to a troublesome cough, accompanied by paroxysms of distressing dyspnœa. He was readmitted into this hospital on the 3rd June, and died on the 7th. The cause of death, as ascertained by post-mortem examination, was hypertrophy of the heart, associated with bronchitis, effusion into both pleuræ, and cirrhosis of the liver. There was no internal aneurism, and the coats of the large vessels appeared to be sound.

The remains of the aneurism in the left popliteal space were removed and examined. The tumour, when cleared, was of the size and general form of a small walnut. The artery was occluded for 2¼ inches of its course by fibrous tissue, and from the lower half of this portion the aneurism sprang. The popliteal vein was pervious throughout. Numerous collateral branches could be seen running into the artery above and below the occluded portion. On making a section of the tumour in the long direction and from the side opposite the artery towards the vessel itself, the following appearances presented themselves:—The sac was well defined, being thicker where it joined the artery than elsewhere. The centre and also that portion of the cavity adjacent to the vessel were occupied by an amorphous, non-laminated, coffee-coloured substance, of the consistence of cheese, which showed no signs of organisation or of vascular connexion with the surrounding parts. That portion of the circumference of the cavity of the aneurism opposite its mouth was occupied by several layers of laminated fibrine. Some of these were partially separated from the others and approximated towards the centre, the interspace thus caused being filled by the amorphous substance, which, however, was of a looser character than that already described.

The amorphous, non-laminated substance could be nothing else than the remains of an ordinary blood-coagulum, and, since the aneurism was originally the size of a hen's egg and finally that of a small walnut, it could only have represented a small proportion of the original bulk of the clot. The fibrinated laminæ were probably due to the attempts which I made at cure by compression, and the displacement of some of these resulted from the contraction of the sac upon them subsequent to the cure. I think so, because the coagulum in the interspace was soft and loose, and seemed to represent a portion of the more fluid parts of the larger mass which had been expressed from it, likewise by the contraction of the walls of the sac.

In my pamphlet, which was written a month previous to the death of the patient, I attempted to show that the aneurism was cured by the rapid coagulation or death of the blood consequent upon its complete stagnation in the sac. I think that this explanation is well borne out, not only by a consideration of the phenomena of cure, but also by the post-mortem appearances.

I beg here to acknowledge the numerous communications that have reached me from surgeons, generally expressing an intention to try this method on the first opportunity. I am accordingly in hopes that it will ere long be determined as to whether the success which may follow its application shall only be looked upon as a rarity, or whether it may be destined to revolutionise the whole surgical treatment of aneurism, and enable us to treat the disease in certain situations with the regularity and precision of a physical experiment.

## MALARIOUS AND OTHER FEVERS IN INDIA.

BY J. B. SCRIVEN,
CIVIL SURGEON OF LAHORE.

IN this communication I shall speak more particularly of Lahore, not only because it is the place I know best, but because it may be taken as a good example of a malarious district.

I said in my letter which appeared in THE LANCET of April 29th last, that in the year 1872 the malarious fever at Lahore seemed to change its character. It became

more virulent, more obstinate, and more generally attended with gastric symptoms. Now this was a cholera year. The approach of cholera was known, and as early as the beginning of May its advent was looked upon with certainty. The first recorded case occurred in May; but for some weeks before this, it had been remarked by others as well as by myself, that simple attacks of purging and vomiting (independent of fever or other known specific cause) were more frequent than usual. The cholera subsided in the beginning of September, which brought us to the season at which malarious fever is habitually most rife, and now the fact was forced upon our notice that a very large proportion of the *fever* cases were attended by gastric symptoms. The fever became widely spread, and extremely exhausting, so that large masses of the population were completely prostrated. This general prostration of the population by fever, however, is only what we are accustomed to see in cholera years, after the epidemic has ceased. The remarkable point to me is that up to the time I left Lahore in March, 1875, the prevalent fever had never lost the peculiar characters, more particularly the gastric symptoms, that it seemed to acquire in 1872. To account fully for this is impossible. Lahore has changed of late years, mainly in increased cultivation of the soil, much of which formerly lay waste, and in the increase of canal irrigation, which latter condition has probably had some influence both in spreading cholera and in increasing and intensifying malarious fever. A proposal has recently been made for cultivating more extensively the eucalyptus globulus in this and other malarious districts of the Punjab, and it will be interesting to see in a few years whether benefit has resulted from it.

This brings me, however, to some important points in diagnosis. I would notice—

1st. The great resemblance, in numerous instances, of malarious fever to cholera. This is not confined to cholera years, and thus we learn that it is not *necessarily* due to the cholera poison. In the year 1868, when I was at the hill-station Murree, a gentleman presented himself in haste at my house, and begged I would go at once with him, about four miles down the hill, to see his native clerk, who he said was very ill with cholera. As we rode together I told my friend that it was impossible the man could have cholera, as cholera was unknown at Murree except when imported, and there was no cholera in the neighbourhood at the time. When I arrived I found that the sick man had had violent purging and vomiting, and was in an extremely weak condition, covered with cold perspiration; his features sunken, his extremities cold, and in every respect he was *to all appearance* in the third stage of cholera. But, on questioning him, I learned that this paroxysm had commenced with sensations of coldness followed by heat, and that he had had a similar attack, though not so bad, about the same hour the day before. My preconceived views were thus confirmed. I gave him a full dose of quinine, for the vomiting had now ceased, and he rapidly recovered. Such a case at such a season causes no perplexity in diagnosis, but it is far otherwise when cholera is also prevalent; and, if the diagnosis is doubtful, the prognosis is still more so, while the progress of the case towards death from cholera, or recovery from fever, may be exceedingly rapid; hence these cases present peculiar difficulties. The history, as in the above instance, often helps us; but in cholera seasons the graver disorder may be combined with the less grave, and, even if the fever be uncomplicated, the history will not go for much if we have to deal with a first paroxysm, of which the cold and hot stages have been imperfectly marked, as they often are when the attack is attended with copious watery discharges from the stomach and bowels. In such a difficulty my judgment has often been entirely swayed by the presence or absence of urine, which in fever, as far as my experience goes, is *not* suppressed. In doubtful cases of this kind the administration of quinine hypodermically is especially valuable, for the irritability of the stomach and bowels may prohibit its use otherwise, and it will do no harm even if the disease turn out to be cholera.

2nd. Cholera is not the only disorder that malarious fever simulates. A difficulty, less only in consequence of the slowness of progress, presents itself with reference to typhoid fever. Twenty-two years have elapsed since I first pointed out the existence of typhoid fever in India, but though its prevalence has now for some years been generally acknowledged, there is danger of many cases being overlooked from difficulty of diagnosis.

In the month of August, 1874, I was consulted by a gentleman at Lahore, thirty-four years of age, on account of fever, from which he had suffered in former years, but which this time was distinctly remittent, the temperature varying from about 101° to 102°. The fever was accompanied by the lassitude, prostration, loss of appetite, and frontal headache which characterise typhoid. Quinine failed to check it. All the organs were carefully examined, but no local inflammation could be found to account for the continuance of the pyrexia. The patient was about to leave for Simla. His age was such as to render typhoid unlikely, and he had no diarrhœa. I therefore consented to his travelling, writing to a medical friend to see him by the way. This, if I remember right, was on the seventh day of the fever. Two or three days after his arrival at Simla, I was pleased to hear that the fever had left him. It was doubtless malarious, and had been removed by the change of air. I can call to mind similar cases in children, where the fever has been remittent and has only yielded to the quinine after many days. I believe that in such cases, at the outset, the diagnosis is impossible, and becomes certain only after careful watching, it may be for a fortnight, and after energetic administration of quinine. In typhoid, of course, the quinine will fail, but the pathognomonic signs will generally have become marked by the end of the second week. Hence it is obvious that some cases must remain for ever undiagnosed, for mild typhoid may last only fourteen days or less.

3rd. If we are subject to uncertainties in the diagnosis of typhoid, such as would scarcely ever arise in England, we by no means escape those which might equally present themselves in this country. I must admit an uncertainty in my own mind, to this day, with reference to two cases, in children, of pneumonia accompanied with diarrhœa. Both of these cases did well. I treated them as typhoid complicated with pneumonia, and observed all possible precautions regarding contagion; and the disorder did not spread, although in both instances there were other children in the house.

Thus we see that the advancement of medical science has been no less fruitful in India than in England in creating a necessity for greater attention to minute points in diagnosis, involving a vast increase of labour, which is not relieved in our great dependency, as it is at home, by a division of practice into special branches.

I hope to have the opportunity to make a few remarks on the *treatment* of malarious disorders in a future article.

St. James's-square, S.W.

## FIFTY-TWO FORCEPS CASES.

BY F. H. V. GROSHOLZ, L.K.&Q.C.P.I., L.M., &c.

WE have been favoured of late with reports in various medical journals of the midwifery practice in several of our large lying-in hospitals, and I think it will be interesting to compare with these the statistics which can be given by general practitioners. In the first place, we should consider for a moment what class of patients the country practitioner is called upon to attend. When we remember that the large majority of women are attended by midwives who have a strong objection to sending for a medical man unless actually compelled to do so, it will be at once understood how it is that a very high percentage of the cases which come under the care of the country practitioner are such as require instrumental assistance. Then, again, where a large proportion of the women are factory operatives, we cannot wonder at meeting with many weakly constitutions and badly developed forms. Bearing in mind these facts, it does not seem surprising that the forceps cases should form about a sixth of the whole number I have attended during the last two years.

Before giving an account of these cases I will briefly describe the instruments I use. They were made for me by Messrs. J. and W. Wood, of Manchester. The long, double-

curved forceps are 16½ in. in length; the handles, which have shoulders, are 6½ in., and the blades 10 in. long. The length of the curved portion of the blade is 7½ in., of the straight portion 2½ in. The fenestrum is 5½ in. long, and 1½ in. broad at its widest part. The tips are ¾ in. apart, and the greatest width between the blades when the handles are closed is 3 in. The straight forceps, which might be called medium more appropriately than short, are 14 in. in length; the handles are 5½ in., and the blades 8½ in. long. The fenestrum is 4½ in. long, and 1½ in. broad in its widest part. The tips are ¾ in. apart, and the greatest width between the blades is 2¾ in.

In these fifty-two cases I employed the long double-curved forceps twenty-one times, the medium straight forceps twenty-seven, and the ordinary short forceps four times. Sixteen primiparæ were delivered with the forceps; of these one died, but she had for months been in a hopeless condition from advanced renal disease. There were born nine male children, seven of whom were living and two dead, and seven living female children. In the case of one of the children which was stillborn, the mother had been in labour many hours under the care of a midwife; the head was tightly jammed low down in the pelvic canal, and the funis was prolapsed, cold, and pulseless. In the other case the pelvis of the mother was very much contracted, so that considerable compression of the child's head was necessary before delivery could be accomplished; indeed, I was in doubt as to the propriety of performing craniotomy. The short forceps were used once, the medium eight, and the long seven times.

The number of pluriparæ delivered by the forceps was 36, one of whom died; but as at the time of her confinement she was almost *in articulo mortis* from pneumonia, her death cannot be ascribed to the use of the forceps. Thirty-five of the children were born alive, 25 of whom were male and 10 female; one female child was born dead and much decomposed. The long forceps were used fourteen, the medium nineteen, and the short three times.

The following is a tabular arrangement of the above statistics:—

| | | Children. | | | | Mothers dead. | Short forceps. | Medium forceps. | Long forceps. |
|---|---|---|---|---|---|---|---|---|---|
| | | Male. | | Female. | | | | | |
| | | Living. | Dead. | Living. | Dead. | | | | |
| Primiparæ ... ... | 16 | 7 ... | 2 ... | 7 ... | 0 | 1 | 1 | 8 | 7 |
| Pluriparæ ... ... | 36 | 25 ... | 0 ... | 10 ... | 1 | 1 | 3 | 19 | 14 |
| Total ... ... | 52 | 32 ... | 2 ... | 17 ... | 1 | 2 | 4 | 27 | 21 |

The causes which necessitated the use of the forceps may be thus classified:—

| | |
|---|---|
| Contraction of pelvis ... ... ... ... | 25 |
| Uterine inertia and exhaustion ... ... | 15 |
| Convulsions ... ... ... ... ... ... | 5 |
| Hæmorrhage ... ... ... ... ... ... | 4 |
| Face presentation ... ... ... ... ... | 2 |
| Pneumonia ... ... ... ... ... ... | 1 |
| | 52 |

*Remarks.*—I cannot but confess that the successful results I have had in these cases have given me much pleasure. A death-rate of 4 per cent. in the mothers, and only 6 per cent. in the children, is indeed small; and yet the mortality directly due to the operation is still less than this; for, in reality, there was only one child whose life was sacrificed by the use of the forceps. On one point I would speak most emphatically, and that is on the folly of procrastinating the application of the forceps to the latest possible moment. I am firmly convinced that not only is much unnecessary suffering borne by parturient women, and much damage done to their health and constitutions, but also that many mothers lose their lives, and very many children are still-born, who might have been saved if the use of the forceps had not been too long delayed. Instead of so many deaths being attributed to the *use*, they should be put down to the *too late use* of the forceps; and these instruments should be recognised, not as murderous weapons, but as one of the greatest means of preserving life which science has given to mankind. The cases which have seemed to me most dangerous, and have caused me most anxiety, have been those in which, either through ignorance or perversity, the midwife has not sent for me till the mother's strength was almost gone, and her life already trembling in the balance. How many cases of flooding, of convulsions, of protracted and often only partial recovery have I seen, which were clearly traceable to most blameworthy delay. At the same time, I would not for a moment be thought to advocate the indiscriminate and hasty use of the forceps; for an accoucheur should never use them without a feeling of grave responsibility, and a firm conviction that he is acting for the best; but, on the other hand, he must guard against the errors of over-caution and indecision, lest a life be lost by his withholding till too late the means he possesses for its salvation.

Manchester.

# A Mirror
## OF
# HOSPITAL PRACTICE,
## BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

## GREAT NORTHERN HOSPITAL.

### FRACTURE ACROSS THE PETROUS PORTION OF THE TEMPORAL BONE; ESCAPE OF SUBARACHNOID FLUID; DEATH; REMARKS.

(Under the care of Mr. GAY.)

THE notes of the following interesting case were taken by Mr. Carter, house-surgeon.

G. R——, a carman, aged twenty-four, admitted at 7 P.M. on June 23rd, partially conscious, but in a state of collapse. He had been kicked behind the left ear by a horse, and was rendered insensible for half an hour. As soon as he began to be conscious he was sick, and both before and after admission he brought up dark-coloured blood. There was hæmorrhage from the nose and left ear. The pupils were dilated, but sensible to light. At 11 P.M. his pulse was 84, full and regular.

June 24th.—Has slept fairly well. Consciousness almost restored. The bowels have acted freely to a purge of calomel and compound senna draught. Takes nourishment. Temperature 101·8°.

25th.—Passed a fair night, and is quite sensible this morning; indeed he seems fairly well, sits up, and converses rationally and freely if spoken to; and so he remained until the night of the 27th, during which he became extremely restless.

28th.—Became unconscious during the night, and so restless that it was with difficulty that he was restrained from getting out of bed. His pupils are partially dilated, and not fully sensible to light. Pulse 66; temperature 102·6. He lies partially on his side and face, with his arms thrown over the pillow. Cannot be aroused by speaking to or moving him, and does not take nourishment except what

is put into his mouth. Urine runs away. Head shaved and cold applied. It was difficult to say whether there was any psycho-motor paralysis. He did not move his limbs, or if he did move them he betrayed no signs of volition, but, on the contrary, they seemed simply to obey the laws of gravitation. Mr. Gay directed the galvanic battery to be employed. The limbs were obedient to reflex action, and for a time there seemed to be no other. However, on increasing the strength of the shock through one limb, he became conscious of it, and not only drew the limb away from the wires, but moved his body and the other limbs as well, in order obviously to escape from the annoyance.

29th.—Still insensible to all around, but cries out frequently "My poor head." Pupils semi-dilated, and but very slightly affected by light. During the day he became for a time more conscious, and answered when spoken to. Urine still runs away involuntarily; bladder contracted; refuses to take nourishment. Pulse 96; temperature 101·5°. Tongue, centre whitish, red at the edges and tip. Towards night he became restless again, and tried to get out of bed.

30th.—Cerebro-spinal fluid escaped from his ear, saturating his sheets and shirt. It commenced to run about three o'clock P.M. yesterday. He has become quite unconscious; pupils semi-dilated and immovable by light; lies with his eyes half open. Temperature 102·8°; pulse 130. Is getting gradually worse. He only moves when moved, and then his limbs drop as if paralysed. Swallows only when anything is put into his mouth.

On the 1st, insensibility was complete, but still *without paralysis*. His temperature rose to 103·6°; pulse to 140; and he died about six, his breathing having become hurried for some hours before death.

*Autopsy.*—There was a fracture across the petrous portion of the temporal bone just externally to the inner meatus, and some slight separation of the fragments. The portio mollis was torn across; the portio dura was partially torn. The lateral sinus was slightly wounded, and from it a small quantity of blood had passed into the fossa adjoining and formed a tumour, about the size of a nut, between the bone and dura mater. The subarachnoid space was occupied by a considerable quantity of tough puriform fibrous material. A portion was adherent to the left half of the pons, the surface of which was soft and abraded. It continued onwards along the course of and below the basilar artery and circle of Willis, surrounding and slightly gripping the third pair of nerves. A small quantity was found in the left ventricle, attached, but not adherent, to the choroid plexus. A considerable quantity was also found on the surface of the hemisphere, *principally* along the edges of the median fissure, and gradually lessening in quantity *outwards* from, and *downwards* on the sides which bound, that fissure, as well as both forwards and backwards. The appearance was remarkable. The deposit was of a deep yellow or ochry colour, and evidently beneath the pia mater; for it dipped down between the convolutions, so that when cut across it had everywhere the form almost of an equilateral triangle. It lay along the course of and below the large veins, their *principal* branches, standing in quantity in relation to the size of the branches. Thus it cut off the brain-tissue from these vessels, and as these were exceedingly bloated, so the general appearance of these blue veins, the yellow pus and the pink brain-tissue—each clearly mapped out—was very striking. The brain was much injected throughout. The ventricles contained but a small quantity of fluid. There was no other indication of disease.

*Remarks by* Mr. GAY.—The case is interesting in several points of view. Enough has been said and written of the course of a fracture through the petrous portion of the temporal bone and adjoining textures, which gives exit to the cerebro-spinal fluid.* Its escape in this case was, for the first three days, obviously impeded by the formation of clots along the course of the injury, for it was when their auricular portion came away that its flow began. Moreover, whilst it was retained the patient appeared to have suffered from the shock of the accident, and little more, and of this the symptoms had been rapidly passing away. With the escape of the fluid, however, brain symptoms began, and these eventuated in pyæmic deposit in the various parts as described, superficial softening of the pons, and general injection of brain-tissue. The symptoms were extreme restlessness, gradual elevation of temperature, increase of heart's action, coma, and, lastly, shortness of breathing.

There was no psycho-motor paralysis, but this could not, I submit, possibly have been proved had not the galvanic test been used. There was no facial paralysis, although the portio dura was lacerated, not torn through; and there must have been deafness, although this was not possible of detection. It should be said that the bowels were very costive throughout, in addition to the fact stated that there was incontinence of urine with contraction of the bladder.

The case bears upon the question of liability to fallacy in observations as to brain paralysis. We have lately been favoured with some remarkable lectures on this subject, and with conclusions in reference to this point which would, perhaps, have been received with hesitation but for the great celebrity of the lecturer, his known clearness of observation, and the scrupulous regard for conformity to truth in every observation, which he has ever shown in the course of his inquiries.

With all this, and looking at the case just given, as well as analogous instances in which facts of the same kind have been brought out by the galvanic test, which otherwise could not have been detected, is it, I would ask, not open to question whether some of the cases referred to in the course of these lectures—surmising that at least a portion of them was recorded by other observers, and were not of recent date—would not have been differently interpreted had the evidences of palsy been put to the test referred to? Is it not possible that in some of the best-recorded cases of so-called brain-palsy, through its omission, a paralysis due simply to *suspension* of the function of volition, from an altogether different cause than that of disease in a centre, as regards a certain group of muscles—as coma, for instance—might have been misapprehended for its *loss* or *destruction*, and have thus led to inferences, anatomical and physiological, which, correctly interpreted, these cases could not reasonably support? In such cases of seeming, assuming them to be those of real, psycho-motor paralysis, any conclusions from coincident brain disease would of course involve a serious fallacy.

It is, perhaps, arrogant in me to raise any objections which might seem to invalidate the very remarkable generalisations to which I have made but a passing reference,—and, indeed, these objections may meet with a ready refutation; but if there is anything in them worthy of note, I am sure they will be considered by the distinguished physiologist alluded to in the spirit in which they are made.

* See Pathological Transactions, vol. xvi., p. 213: case by Mr. Gay.

## UNIVERSITY COLLEGE HOSPITAL.

IMPASSABLE STRICTURE; INDURATION OF PERINEUM AND LIMITED EXTRAVASATION OF URINE; ABSCESS; PARTIAL RETENTION; PUNCTURE PER ANUM; ABNORMAL ARRANGEMENT OF PERITONEUM; DEATH.

(Under the care of Mr. BERKELEY HILL.)

For the following notes we are indebted to Mr. A. P. Gould, surgical registrar.

J. W——, aged sixty-one, had led a moderately healthy life. When a boy he had gonorrhœa, which lasted nine months. Had no trouble in passing urine until three years ago. Then a lump came in the scrotum, with some impediment in micturition. This disappeared, but frequently returned afterwards. Seven months before admission he was in another hospital with the same swelling, when a catheter was passed and the perineum slit up. He got well, and soon left the hospital. For three months the swelling had been enlarging again, and on admission the scrotum was larger than the head of a child of one year; the swelling—hard, not fluctuating or tender, of purple colour—extended over the pubes and penis into the perineum, where there was a scar in the mesial line, which had opened, and whence serous fluid exuded. The urine, voided in a stream by the natural channel, was alkaline and slightly albuminous. No catheter could be passed beyond a small portion of the stricture. The patient was

feeble, with a furred tongue; full, rapid, irregular pulse; and considerable atheromatous rigidity of the arteries. Percussion of the abdomen gave a dull note for two inches above the pubes, and manipulation discovered a round firm mass, feeling somewhat like an orange, in the mesial line above the pubes. If this mass were pressed down while the finger was in the rectum, irregular fluctuation could be just felt behind a prostate enlarged apparently to double the normal size. Attempts to pass a catheter, after prolonged trial on the 10th, failed. An incision on each side of the middle line into the abscesses and œdematous tissue of the perineum and scrotum was made, and stimulating and nutritious food was given, and warm poultices applied to the perineum.

The next day the patient was easier; had had some sleep in the night, and taken plenty of food. The urine, passed three times in the night in a stream, was dark, fetid, with moderate deposit of pus. Perineal swelling less brawny; matter weeping from the incisions, but apparently no urine escaping by that way. The succeeding day the swelling had increased again; urine passed only in small quantities and with great effort. Another attempt to pass a catheter failed to do more than insinuate a No. ½ silver partly through the stricture; when it had penetrated some distance, the stem was blocked so firmly in the indurated tissue of the stricture as to become immovable by any force it was thought prudent to employ. The patient's strength was less than on the previous day, the swelling increasing, and the bladder slowly getting more and more distended. The patient was put under chloroform, and the bladder punctured per rectum. The long distance of the *bas fond* from the anus allowed very little of the cannula to project into the bladder; a flexible catheter was passed through it, and, with the cannula, fastened to the buttocks in the ordinary manner. The urine ran freely through this tube, and the patient remained free from pain until the next morning, when he complained of pain at the anus, which was attributed to the cannula, and an attempt was made to withdraw it while leaving the catheter *in situ*. This failed, and the urine, which had continued to run away freely through the catheter since its insertion, and become clear, acid, and free from pus or smell, ceased to flow. This condition remained unchanged till 5 P.M., when Mr. Hill, on his visit, ascertained the cannula and catheter had escaped from the bladder into the rectum, the latter instrument being doubled backwards at the point where it had projected into the bladder beyond the cannula. In addition to this, the inflammatory œdema of the scrotum had now passed to the buttocks and half way down the inner side of the right thigh, with an abrupt, irregular line of demarcation, and here and there vesication. Temperature 103° F. No tenderness of abdomen, which was soft and yielding. The bladder could not be distinguished now through the abdominal wall or per rectum. Patient had no desire to pass water. At 10.30 P.M. the patient was suffering great pain. Temperature 103° F. Abdominal walls flaccid, not tender; the bladder could be indistinctly felt. The patient was put under chloroform, and the rectum trocar inserted a second time into the bladder. Urine flowed in fair stream, and the trocar was fastened in. Little improvement followed this; and the next morning the erysipelatous blush extended over the left buttock, the thigh, and the flank. Two days later the patient died.

At the post-mortem examination extensive general peritonitis was found, most intense at the pelvis. The pelvic viscera were removed in one mass. The recto-vesical pouch of the peritoneum (very long) was found to extend completely past the trigone of the bladder and to reach quite up to the prostate; accordingly, both the punctures from the anterior wall of the rectum to the trigone of the bladder passed twice through the peritoneum. A very tight stricture occupied the membranous and bulbous part of the urethra, which only admitted a fine probe. A short false passage passed into the dense tissues surrounding the urethra. The tissues of the perineum were immensely thickened, and traversed by a narrow fistula from the urethra just behind the stricture to the wound in the perineum. The prostate was enlarged; the bladder distended, hypertrophied, and sacculated. The mucous membrane was dark-coloured from old cystitis; it was marked with two trocar punctures at the trigone, about half an inch in front of the orifices of the ureters, but near the middle line, and half an inch behind the prostate. The ureters and pelves of the kidneys were also greatly enlarged, the kidneys much wasted by interstitial nephritis.

## WEST LONDON HOSPITAL.

### STRICTURE OF THE URETHRA AND PERINEAL FISTULÆ; INTERNAL URETHROTOMY; PERMANENT CLOSURE OF FISTULÆ THREE DAYS AFTER OPERATION.

(Under the care of Mr. TEEVAN.)

E. H——, aged twenty-six, miller, of thin and dejected appearance, was admitted into the hospital on May 9th, 1876. The patient stated that he had an attack of gonorrhœa nine years ago, for which he took medicines, and that he was afterwards long troubled with a gleet. About eight years ago he noticed that the stream of urine began to get smaller, and that he had to strain during micturition. He then commenced to suffer from frequent attacks of retention of urine, which were relieved by the catheter. One year and a half ago the perineum began to swell, an abscess formed and burst, and the patient afterwards passed nearly all his urine through the fistulæ which remained. On examination a tough stricture, only admitting a small catheter, was found four inches and a half from the meatus externus. There were also three ring strictures of large calibre in the penile urethra. The centre of the perineum was much indurated, and in the raphe were two fistulous openings about one inch apart from each other.

On May 10th Mr. Teevan passed a small elastic olivary catheter and left it in for fifteen hours: its retention produced much soreness and discomfort. On May 23rd he divided all the strictures from before backwards, and having passed a No. 26 bougie, to show that all the urethra was clear, he immediately withdrew it. The patient had no rigor nor bleeding after the operation, and three days later the house-surgeon (Mr. Alderton) reported that the passage was quite water-tight. The patient was then allowed to get up and go about. On June 1st, 4th, 7th, and 10th No. 25 metal bougie olivaire à ventre was introduced. The man was afterwards taught to pass a large olivary catheter for himself, and on June 14th left the hospital quite well.

Mr. Teevan remarked that the case showed what internal urethrotomy could achieve, and he was not aware of any other means which could have effected the desired object in so short a period. The chief stricture was of too chronic and indurated a character to have been successfully enlarged to the size it had been without causing much pain and local irritation, and he had therefore divided all the contractions. As a rule, fistulæ would rapidly close if the strictured urethra were enlarged to its normal diameter; but if nothing bigger than a No. 12 English was aimed at, disappointment, he alleged, would probably result, as the canal was only half opened up. The action of the operation was purely mechanical. The fistulæ were kept open by the obstruction in front of them not allowing the urine to escape, and distending the urethra posteriorly with great force. So soon as the obstacle was removed, the openings quickly closed of their own accord. It was of great importance to pass a very large instrument after the operation to show that the work had been thoroughly done, and in the present instance he had introduced No. 26, which lay quite loosely in the urethra when passed.

## BRADFORD INFIRMARY.

### ULCERATIVE MYOCARDITIS, ENDOCARDITIS, PERICARDITIS, AND DOUBLE PLEURO-PNEUMONIA.

(Under the care of Dr. REGINALD ALEXANDER.)

ELIZABETH B——, a housemaid, was admitted at the request of Dr. Bronner, April 10th, 1875. There was nothing worthy of note in either her family or personal history, having enjoyed good health until a month ago, when she began to suffer from pains in the shoulders, which becoming worse, confined her to bed for a week. About the 1st of April she first began to notice shortness of breath and pain of a clicking character over the lower part of the

sternum. On admission she complained of pains in the shoulders, and over the whole of the cardiac region there was pain, which was increased by the pressure of the stethoscope. She could not lie on the left side on account of dyspnœa, which came on when she attempted to do so. Severe hacking dry cough also troubled her. The pulse was rapid and of small volume. The heart-sounds were replaced by bruits both at the apex and base. The double murmurs at the base were best heard in the situation of the aortic valves and along the course of the great vessels, especially at the right sterno-clavicular articulation. The cardiac dulness was much increased in every direction. Urine acid, sp. gr. 1028, no albumen. Ordered beef-tea and milk diet, and an alkaline diuretic mixture containing tincture of digitalis. Poultices to be applied to the cardiac region.

April 12th.—Feels much better. Dulness in the cardiac region not so great. A good deal of arterial excitement. Evening temperature 104°; pulse 124; respiration 44 per minute.

13th.—Arterial excitement less; is sweating profusely. Morning temperature 101·4°; pulse 107; respiration 48. Evening temperature, at 7 P.M., 104°; pulse 124; respiration 42. At midnight, temperature 99·6°; pulse 96 (after the ice). Complains of great heat and thirst. Ordered ice to suck.

14th.—Has passed a good night. Cardiac dulness less; no friction fremitus. Morning temperature 101·4°; pulse 122; respiration 38. Evening temperature 100°; pulse 94; respiration 38.

17th.—The endocardial bruits more distinct.

19th.—Pain in various parts of the body, and had severe jumping pain yesterday in the cardiac region. Morning temperature 103°; pulse 120; respiration 47. Evening temperature 104°; pulse 114; respiration 41. The blistering fluid applied to-day to the cardiac region. Ordered quinine mixture and digitalis.

26th.—Has had no special symptoms during the last few days, but the cardiac dulness is increasing, and the patient has vomited her food occasionally. The number of respirations per minute has increased to beyond 50.

28th.—Sweating profusely. Pneumonic complication has been suspected for the last few days, but the patient's condition precludes examination of the chest. She can scarcely bear anyone to approach her.

May 1st.—2 P.M.: Severe rigors. 2·45: Temperature 104·5°; pulse 124; respirations laboured.

2nd.—Feels better this morning. Pulse and temperature more favourable, but she cannot take food, and during the day rigors returned, respirations increased to 70, the face became livid, and she died at 8 P.M.

*Autopsy* was made by Mr. T. C. Denby. Heart's walls soft; narrow ante-mortem clots in aorta; traces of fibrinous deposit on one section of mitral valve. Posterior section of aortic valve disappeared, and its place occupied by large fibrinous deposits of ragged and irregular character. At the root of this valve was an aneurismal pouch, the size of a walnut, the interior of which was divided into small compartments, one of them projecting into right auricle, just above tricuspid valve, its wall being very thin. About eight ounces of pericardial fluid. Right lung adherent closely in whole extent of pleura, in a state of red hepatisation from base to apex. Left lung incompletely hepatised; adherent to pleura; both lungs very small. Pleuritic fluid in moderate quantity.

*Remarks.*—The patient's illness was characterised by frequent attacks of great irritability of temper, and she could not at times bear the approach of anyone to her bedside, in consequence of it increasing the heart's action, and her agonising dyspnœa and pain.

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PRESENTATION.—A handsome chased silver salver has lately been presented to Mr. Charles Willcox, surgeon, of Wareham, Dorset, on his retiring from practice there and going to reside at Southsea, Hants. The salver has the following inscription engraved on it:—"Presented to Charles Willcox, Esq., M.R.C.S. and L.S.A., with a purse containing four hundred sovereigns, as a token of esteem and regard, by the inhabitants of Wareham, the Isle of Purbeck, and others, among whom he practised forty-three years."

# Reviews and Notices of Books.

*Clinical Lectures on Diseases of the Urinary Organs.* Delivered at University College Hospital by SIR HENRY THOMPSON. 4th Edition. London: J. and A. Churchill. 1876.

WE welcome with pleasure the appearance of the fourth edition of these well-known and deservedly popular lectures. The work has been almost entirely rewritten, and the number of lectures increased from fourteen to twenty-four. It has, indeed, attained such proportions that its oldest friends may, on a casual glance, fail to recognise the whilom familiar appearance; but a closer observation will disclose the family likeness, for the "Clinical Lectures" now resembles in appearance and in size the older members of its fraternity, the Diseases of the Prostate, the Pathology and Treatment of Stricture of the Urethra, and Practical Lithotomy and Lithotrity.

The Clinical Lectures in this edition, like those of its predecessors, first appeared in our columns, but have been still further extended and elaborated, and may now be judged as setting forth the results of the ripest experience of their author, and as containing the most recent development of his knowledge of urinary diseases.

Most of the lectures are so well known that detailed criticism is unnecessary. It may, however, be remarked, as we have on a previous occasion announced, that Sir Henry Thompson makes a strong and determined stand against the too mechanical mode of treating urethral strictures, a procedure which had its origin in a school of surgery that has recently made vigorous efforts, not only in America, but also in this country, to attain supremacy, but whose influence seems to be once more waning.

In Lecture 19, which was delivered in 1873 before the Midland Medical Society at Birmingham, Sir Henry expresses in strong terms his belief that stone in the bladder, like many other maladies, is exterminable—so far, at least, as it is painful or dangerous. He very properly adds, however, that "the diagnosis of the presence of stone in the bladder and of its size is a matter of the highest importance"; it being not less important to find a stone when small, and to determine its size, than to perform dexterously the operation for its removal. But the *early* detection of vesical calculus is certain only with a properly constructed sound. The old, heavy, largely-curved sounds probably missed as many stones as they found; but with the modern, light, short-beaked sound, the minutest calculus may, with reasonable care and skill, be readily detected, especially if the instrument be fitted with a cylindrical handle. There is perhaps no other thing that Sir Henry Thompson may lay juster claim to than the introduction into modern surgical practice of the short-beaked sound. By his teachings and his writings, by his practice and his public advocacy, Sir Henry Thompson has demonstrated the rare merits of this instrument, in the perfecting of which he has himself played no small part.

The important subject of lithotomy is more closely pursued than in previous editions, and is embellished, as, indeed, is the entire work, with numerous illustrations—a new feature in the book. The last chapter contains some concise but practical rules for the clinical examination of the urine, with drawings of the deposits.

Finally, it may be affirmed that this book—the record of the surgical experience of a master of his art—is in every respect calculated to take even a higher place in surgical literature than any of its predecessors, and to serve as a trustworthy exposition of the state of knowledge of affections of the urinary organs and of the best modes of treating them in the year 1876.

*Thérapeutique des Malades Vénériennes et des Maladies Cutanées.* Par P. DIDAY, Ex-Chirurgeon de l'Antiquaille de Lyon; et A. DOYON, Médecin Inspecteur des Eaux d'Uriage, Directeur des Annales de Dermatologie. pp. 887. Paris: G. Masson. 1876.

THIS book presents a combination of two subjects, which we have been accustomed to see treated together in periodicals both French and German—namely, the quarterly volumes of Auspitz in Prague, and the Annals of Doyon at Uriage. It was a happy thought of M. Diday's, whom we know so well by his "Treatise on Infantile Syphilis," published by the Sydenham Society, to present us with a book restricted to the therapeutics of venereal diseases. Medical literature abounds in works in which the theories, history, and controversies regarding these complaints are extensively treated. We wanted a modern guide to point out the way of successfully combating these ailments; this practical and at times witty guide we find in M. Diday. This author (who reminds one of Ricord by the sprightliness and humour scattered through his book) is above all eminently practical; indeed so much so that, as he says in his introduction, "the practitioner will, after studying the work, rise a complete specialist." Many books on venereal diseases are surcharged with numerous modes of treatment, the reader becoming confused in the midst of therapeutical advice. M. Diday distinctly states that he confines himself to the *necessary* medications. It may be looked upon as a fortunate circumstance that he resolved to publish these therapeutics, as the profession at once obtains the benefit of the thirty years' experience of a man who, by his practice and previous writings, occupies such an eminent position. Ricord, Fournier, and Clerc, well known in France as talented syphilographers, have never published complete treatises; it was reserved to Diday, their contemporary, to break the charm. It was, however, impossible for him to exclude altogether the descriptive portion of the subject, as a picture of the lesion, however short, should precede the treatment. Thus, we find striking details as to symptoms, the physical and moral peculiarities of patients, &c. &c., pleasantly relieving the dryness of the formulæ. The latter are eminently French, and it is not likely that the same prescriptions could be made applicable in this country, as we do not deal so largely in syrups, ptisans, baths of two or three hours' duration, as our brethren of France are accustomed to do. Nor are we, in general, so precise and so minute in our directions as French surgeons. But from M. Diday's prescriptions, with a few modifications, we shall derive considerable benefit. As we stated above, theories are not touched upon in this book, so that the unity or duality of chancre is not discussed, but the work is at once divided into three extensive chapters: Blennorrhagia, Chancrella, and Syphilis. Chancrella is the term which the author applies to the sore commonly called soft chancre. He coined it by its analogy to the affection called varicella, the near relation of variola. The infecting sore retains the name of chancre, the non-infecting has the name of chancrella. We are not partial to neologisms, but M. Diday may be forgiven this coinage. To avoid confusion we may at once say that our author reserves the term *chancroid* for a sore which *may* spring up in an individual already labouring under a syphilitic diathesis. In the chapter on blennorrhagia and its complications, which occupies no less than 138 pages, the author expresses a belief that, at the very outset, and under certain circumstances, the disease may be cut short by a caustic injection, but he confesses that such cases are rarely met with. We were under the impression that this abortive treatment had been given up. An excellent rule, however, of our author is the avoidance of injections and copaiba before the discharge is what he calls *mature*—viz., when every trace of inflammation has disappeared,—four or five weeks being necessary for this. The author has great faith in copaiba and cubebs at the proper time, and is very explicit as to injections, &c. The complications, the disease in women, and gonorrhœal ophthalmia are lucidly and very practically treated. Passing on to his chancrella, M. Diday believes that at the beginning the abortive treatment, by means of the chloride of zinc, may be attempted. Where, however, the description of the treatment is very minute is in the manner of dressing the sores according to their locality. The usual paragraphs on bubo, phimosis, and paraphimosis follow, and will repay perusal. As to the treatment of actual syphilis, M. Diday's views have been for some time before the profession. He divides the disease into three kinds—first, rudimentary; secondly, mild; and, thirdly, strong. Only for the latter is mercury used. The author is wedded to this system, and forgets that in all these kinds the virus is the same. Nor are the characteristic signs of these different grades sufficiently striking to convey conviction. Tertiary syphilis and prophylaxis are subsequently treated, and here the author is a great believer in iodine. The book concludes with chapters in the form of dialogues, referring to delicate subjects touching marriage, wet nursing, &c., which are written with a certain vein of humour, and are, perhaps, too rich in details. This is, altogether, one of the most useful and clever special works which have of late been issued in France.

Next comes M. Doyon, who offers us a book on the Therapeutics of Skin Diseases, herein following in the track of his friend Diday. The subject, with which he is thoroughly acquainted, carries him so far that he has filled 490 pages, being 100 more than are contained in Diday's work. The two are bound together, and therefore, as may be gathered, present rather a formidable bulk. M. Doyon's book is very complete—indeed, too much so, as the practice of a great number of dermatologists is largely dwelt upon; though perhaps the advice of the author, whose experience is considerable, would have been sufficient. As the editor of the Annals of Dermatology, and as the translator of Hebra, M. Doyon has come into contact with most of the writers on skin diseases, and hence he felt bound to allow them to have a share, perhaps too prominent, in his book. The author does not indulge in long disquisitions as to classification, but simply runs through the different affections of the skin, under the heads of non-contagious exanthemata, maculæ, vesicles, pustules, &c. &c. We were struck by the completeness of the chapter on scabies; and as M. Doyon is inspector of the mineral waters of Uriage, we expected much information from the chapter on the treatment of skin diseases by mineral waters. Herein we were not disappointed, and closed the book with the expectation of having pretty frequently occasion to refer to so valuable a store of practical hints. It is probable that, in subsequent editions, the two volumes will be issued separately.

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*Medical History of our West African Campaigns.* By Surgeon-Major A. A. GORE, M.D. London: Baillière, Tindall, and Cox.

WE are indebted to Surgeon-Major Gore for having rescued from the obscurity of a Departmental Blue-book the records of the "doctors' war." Few beyond those who gratuitously receive the Army Medical Reports, and perhaps consult its index as a matter of curiosity, are aware that in the volume issued in 1875 is contained a report by the principal medical officer of the expedition, Sir Anthony Dixon Home, which is at once an excellent type of what such a document should be, and a most entertaining narrative.

The work of Surgeon-Major Gore, however, not only preserves the history of the Ashantee war, but gives a most interesting account of the earlier history of the Coast and the successive calamities which befell the several attempts to establish corps of white troops in such a climate.

In connexion with the late campaign many valuable experiences have been gained relative to dieting soldiers against fatigue, and these have been very clearly put by the author. The superior reviving power of hot soup over spirits, and the greater benefits of cocoa before the early morning march than are derivable from tea, which often sickens an empty stomach, are well insisted on. The true value of alcohol is rationally arrived at, and Dr. Gore agrees with Sir A. Home in concluding that it should only be given under proper supervision, and sums up thus: "But that it does any harm when taken in moderation at proper times and places I do not believe;"—nor do we.

Under the head of "Medico-Chirurgical Lessons" are some excellent remarks on Remittent Fevers, drawn not only from scientific observation but from personal suffering. Dr. Gore particularly points out the special tendency of these Coast fevers to produce great irritation and spasm of the neck of the bladder, which may not always be referred to its true cause. As to the value of quinine as a prophylactic, the author corroborates the previous finding—that, while invaluable as a remedy, "it neither seemed to ward off attack nor to mitigate the severity of malarious fevers in those attacked." In fact, Dr. Gore thinks that its premature use impairs its subsequent effect.

The book concludes with a brief sketch of the African Medical Service. It embodies in a very pleasant form an amount of very valuable information for the professional reader, and ought especially to be in the hands of everyone who undertakes service in Western Africa.

# Analytical Records.

### VARIOUS REMEDIAL AGENTS.

Messrs. FERRIS, BOORNE, TOWNSEND, & BOUCHER, the enterprising firm of Bristol, some time back forwarded to us a large number of medicinal and remedial agents which are not generally known in this country. We have given several of them a trial, and found them therapeutically active. Among others, we may mention—Ext. Jaborandi Fluid.; Syrup. Guaranæ comp.; Acetum Ipecacuanhæ; Fluid Ext. Coto Bark; Ext. Sarsaparillæ Fluid., U.S.P.; Ext. Gelsemini Fluid., U.S.P.; Trimethylamine; Gurjun Oil (from the Andamans); Dugong Oil, which some phthisical patients can take when they cannot tolerate cod-liver oil; an ointment of Goa powder, which has been recommended by Sir Joseph Fayrer and others as an efficient agent in diseases of the skin of parasitic origin; and Liq. Secalis Ammonialis.

With reference to the doses of the fluid extracts of the American Pharmacopœia, samples of which, as prepared by this firm, were forwarded for our examination, we may state that the doses are all taken from Professor Stillé's work on Materia Medica and Therapeutics, published in Philadelphia in 1875. Some doubt appears to have arisen as to the dose of the fluid extract of gelseminum sempervirens; this Dr. Stillé gives at from two to ten minims. It requires, however, to be used cautiously; and Messrs. Ferris and Co. consider that a tincture will be found the best formula for general use.

### PHOSPHORUS PREPARATIONS.

Messrs. KIRBY & Co., of Newman-street, Oxford-street, have submitted to us samples of the following preparations, made up in masses:—Pil. Ferri Phosphorati, containing one-fiftieth of a grain of phosphorus to four grains of reduced iron; Pil. Phosphori Mollis, one grain of which contains one-fiftieth of a grain of pure phosphorus, finely subdivided; and Pil. Quinæ Phosphorati. The masses are soft and pliable; readily miscible with other ingredients; soluble in cold water, and rapidly so in water at blood-heat. They will be found very convenient in hospitals, infirmaries, and dispensaries, as the masses can be easily rolled out when required. In the Pil. Phosphor. Pur. each pill contains one-thirty-third of a grain of pure unoxidised phosphorus.

### LEMOINE'S REAL COGNAC.

(J. L. DENMAN, PICCADILLY.)

This is a genuine brandy, very slightly coloured, quite free from sugar, and possessing only a faint trace of free acid. The flavour is excellent, the true wine taste being very apparent. We can safely recommend it for medicinal purposes.

### AUSTRALIAN WINES—RUBY AND AMBER FAIRFIELD.

(P. B. BURGOYNE AND CO., 50, OLD BROAD STREET.)

We have on a previous occasion reported fully on some of the best known of the Australian wines. Two more samples are now before us, which are described as the produce of the Fairfield vineyard, the largest in Australia. Both wines are made from black grapes, and are of the vintage of 1872. We find them to be full-bodied, generous, and somewhat sweet wines, of considerable alcoholic strength, though apparently unbrandied. There seems no doubt that they are the genuine product of the grape, and the only question is as to their flavour. Flavour is proverbially difficult to describe, but we may give some idea in this case, though not a very exact one, by saying that the wines remind us somewhat of burgundy, but more of madeira. They will suit the taste of some persons, but we cannot honestly say that they quite suit ours, and must confess that we are unable to see what advantage they possess over many of the wines commonly used in this country.

### VAUGHAN-JONES'S STANDARD GINGER BRANDY.

(E. VAUGHAN-JONES, 5, WATER-LANE, LONDON.)

The only peculiarity claimed for this preparation is that it is made in bond, which affords some security for the quality of the spirit employed. Ginger brandy is a useful cordial in certain cases, and the sample before us may be commended as good of its kind.

### NESTLE'S MILK FOOD.

(CONSTANT RUBELY, 3, BARBICAN.)

So many varieties of infants' food are now sold that it becomes a matter of some difficulty to choose between them. Nestle's food is a light-brown powder, sweet and pleasant to the taste, and to a great extent soluble in water. It possesses the elements of milk and wheaten flour, is rich in the flesh-forming constituents of food, contains a due proportion of fat and of phosphates, and has the merit of being prepared in an attractive and convenient form. We may add that we have had experience of its successful use.

## THE ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

AFTER an interval of thirty-one years, this Association again met at Sheffield, and business commenced on Tuesday morning last with as fair weather as the town at any time can give. Sir Robert Christison, the retiring president, was unable to be present; so that the duty of proposing Dr. Bartolomè, of Sheffield, as president for the ensuing year fell upon Dr. Chadwick, of Leeds.

Dr. BARTOLOMÈ having taken the chair, and made a few remarks with reference to the honour that had been conferred upon him, delivered the Presidential Address, which

comprised a very able and, in parts, even eloquent description of the town and its surroundings, of the staple trades of the place, and of the improving sanitary conditions under which those trades have been carried on since the Public Health Act became law and sanitary officers were appointed. The excellent quality of the water now supplied to the town was specially referred to, and the President concluded by making a very forcible appeal to the members of the Association relative to the appointment of medical officers of health. He said—"To ensure the efficiency of the medical officer of health, we must secure his independence, and he must be protected against petty tyranny and ignorant caprice; in short, he must be protected against local influences. No officer of health ought, in my opinion, to be appointed or dismissed without the concurrence of the Local Government Board; and I think it would be still more satisfactory if the Local Government Board took the whole business upon itself, both the appointment and dismissal, as well as the remuneration of the officers, and retained within its grasp the power of moving an officer from one district to another, and of thus avoiding the total loss of the services of a good man, who, through exceptional circumstances, might have become unsuitable for one locality and yet a very desirable officer for another."

Dr. FALCONER, of Bath, President of the Council, then read the annual report, by which it appears that during the past year 726 members have been elected, 51 have been lost by death and 83 by resignation. A sum of £300 has been granted by the Association for scientific inquiries, and brief reports were read as to the proceedings of committees on State Medicine, the Cruelty to Animals Bill, and the registration of disease. Some amusement was created towards the close of the meeting by a telegram from Mr. Lawson Tait, who had some alteration in the bye-laws to propose: "Detained; case of hæmorrhage."

Dr. STEVENING delivered an elaborate address in Medicine in the Cutler's Hall on Wednesday morning, and Dr. CHADWICK in that section read a series of papers on the Industrial Diseases of Sheffield. It was also announced that Dr. Brown-Séquard would deliver an address on Thursday on Inhibition as a Therapeutic Agent. In the Public Medicine section Dr. RUTHERFORD read a portion of his second Report on the Antagonism of Poisons (for which he had received a grant of £100) at the close of Wednesday's proceedings. The Parliamentary Committee of the Association received a telegram to the effect that the Home Secretary had agreed to all the amendments proposed by the deputation on the Cruelty to Animals Bill, so as to give the Bill a chance of becoming law this session.

A brilliant gathering of ladies, members of the Association, and others, on the invitation of the President, took place on Wednesday evening at the Western Park Museum. The museum is exceedingly well arranged, and contains many special objects of interest. We desire also to call attention to the very admirable arrangements made by the Local Committee for the accommodation of visitors. A list of all available hotels and lodgings had been provided, under the superintendence of Mr. Matthew Leach, to whom the thanks of the members are particularly due.

## POLLUTION OF RIVERS.

ON Tuesday last, Mr. Selater-Booth, M.P., President of the Local Government Board, received a deputation from the Sanitary Institute of Great Britain at the offices of the Board, Whitehall, in support of the Pollution of Rivers Bill. There were present Dr. Marsh, Chairman of the Committee of the Sanitary Institute, Mr. Charles Watt, M.R.C.S., Dr. William Collins, Mr. Charles Heisch, F.R.C.S., Mr. Eassie, Mr. H. C. Bartlett, Ph.D., F.C.S., Mr. Brudenell Carter, F.R.C.S., Mr. J. F. Ollard, Dr. George O. Drewry, Mr. G. W. Wigner, Mr. Leon Temple, Mr. Charlton Wollaston, and Mr. Percy M. Wood, of Guy's Hospital.

Dr. MARSH said that, in the absence of Dr. Lyon Playfair, he had the honour of introducing the deputation from the institution which had been recently founded to deal with matters affecting the public health. As regarded the smallness of the deputation, that was owing to the fact that many of its members lived at a great distance from London.

Mr. GARDNER said that the right hon. gentleman was aware that this was an infant society and its programme was a little ambitious; but he hoped that what it did would prove useful to the country at large. He might say that all they hoped for was that a reasonable and fair measure should be carried, and that no vested interests should be disturbed if properly passed. He did not think that a nobleman like the Duke of Northumberland would have been their first president if their intentions had been otherwise. They hoped by their efforts to educate the public mind—to use an expression that had been used before—to induce those connected with the manufacturing and mining interests to look on this matter from a more liberal point of view. The Bill he alluded to he believed was for discussion that afternoon. It was a good measure, and he hoped that it was not presumption on his part in saying so. It was a desirable beginning, and he hoped that it might prove to be the basis of further legislation on a more extended scale. They should, during the autumn and winter, try to elicit some expression of public opinion, which would enable Her Majesty's Ministers, at a future time, to do something with regard to the sewage question. The country owed him a debt of gratitude for his great courage in bringing forward this measure.

Mr. BARTLETT remarked that during the last nineteen years he had been connected to a large extent with the paper-making manufacture, and he was there that day because, in the first place, he was a member of the institute, and, in the second place, because a deputation had been received by the right hon. gentleman from the paper-making interest, which had to a certain extent exercised a modifying influence on the Bill in question. He might add that during the time that he had been connected with the paper-making he had always found a difficulty in impressing upon them what an immense importance it was to deal with the noxious matters proceeding from their manufactories.

Mr. COLLINS and Mr. CARTER having addressed the right hon. gentleman, Mr. SELATER-BOOTH said that he was obliged to them for coming, and was glad to have the support of this important representation of the Sanitary Institute in favour of the Government Bill. It must not be supposed that because the discussion of this measure had occupied so small a place in the public journals, it had not received a great deal of attention from the officers of the Department, from himself, the other members of the Government, and from the independent members of both sides of the House of Commons, who were largely interested in the prosecution of the Bill. They would perceive that this measure, although not achieving all that could be desired in the interests of the country and the public health, was, notwithstanding, a great stride in the direction they all wished to proceed. Anyone who was aware of the great difficulty that had attended the passage of similar Bills through the House of Commons in former years would admit that the present session will not have been in vain if this measure is passed. (Hear, hear.) The state of things at the present time was a little critical, and they had but little time before them, as the session was drawing to a close; but, nevertheless, he hoped that it might be possible to pass this measure. At all events, it would not be from any lack of zeal on his part if, unfortunately, he failed in getting it through. The Government were desirous that it should pass, and, although it was not one of those measures to which they had pledged themselves, they had met with much consideration from both sides of the House; and as the question had been so fully discussed in the House of Lords last year, they had great hopes that the matter would be brought to a satisfactory issue.

Dr. MARSH then thanked the right hon. gentleman for his courtesy in receiving them, and the deputation withdrew.

PUTRID FISH.—In the course of the past month quantities of fish, amounting in the aggregate to over eighty tons, were seized in Billingsgate Market, and condemned as unfit for human food. It is satisfactory to find the inspecting officers so vigilant in the performance of their duty.

THE LANCET.

LONDON: SATURDAY, AUGUST 5, 1876.

"MY LORD, and gentlemen of the jury, at the time I did it I didn't know really what I was doing; it came over me all at once. I had never such a thought in my head."

"It is not because a man is possessed by the devil and does something hideously horrible you are to infer that he is insane."

By this despairing plea and fatal rejoinder, which in fact embody the whole forensic features of the Blackburn outrage and murder, the question of responsibility for crimes committed under impulse said to be uncontrollable, is again raised. It is in the last degree important that it should be discussed in a spirit of practical wisdom and with a view to some settlement which may put an end, for a long time at least, to the injurious uncertainty which now besets the subject, and fosters crime because it seems to furnish an excuse for criminals.

Can there be such a thing as "irresponsible criminality?" May an act be criminal and the person who commits it not accountable? By *crime* we mean, not mere law-breaking, but intentional, conscious wrong-doing. This is not a question as to the entire irresponsibility of the insane who are victims of delusion. The English law fully recognises this quality of madness, existent before and at the time of the commission of a crime, destroying guilt, just as *true* insanity after an offence renders the wrong-doer unfit for punishment. What justice in this country does *not* acknowledge is the irresponsibility of those who, acting under impulse, declare themselves to have been involuntary agents, and claim to be absolved. The French code, to some extent at least, excuses the offender who pleads that he was impelled to commit a crime by an irresistible power. Our law rejects the plea of agency in all its forms.

We are afraid the principle laid down by Mr. Justice LINDLEY is incapable of scientific discussion. We do not talk of "possession" in 1876, besides which, if a man could seriously allege that he were "possessed by the devil," and the law admitted the plea, it would doubtless be held to excuse the victim. Mr. Justice LINDLEY probably used this curious phrase in its popular signification, as meaning exactly the reverse of what the words seem to imply—in truth, describing the person alleged to be "possessed" as thoroughly given over, of his own will and motive, to wickedness. It is, however, impossible to treat this important subject in so vague a guise. The real practical issue is incomparably more intelligible and better defined.

There are three standpoints from which this question may be viewed—the philosophic, the scientific, and the socio-political. Let us dispose of the last-named first. It is clearly not politic in the interests of society to admit the plea of impulse, in apology for crime. Those who have much to do with veritable lunatics know how readily they imbibe the dangerous doctrine that, being insane, they may do wrong with impunity. We have always felt that grave responsibility rests upon those who teach that disease of the brain or nervous system, such as that which is known as "general paralysis of the insane," is the efficient cause of moral delinquency. There can be no question as to the accuracy of this view, so far as it reaches. It is as well ascertained as any truth within the range of medicine, but it is only a half truth. When paralysis affects the organ of the mind, only the strongest, or, in other words, the most highly developed, of the moral faculties or "principles" which compose the individual character retain their power of action. The weaker elements fail first. When, therefore, a person affected with general paralysis begins to steal, to lie, to drink in excess, or to outrage propriety in any way, it is certain that these evil propensities have only been held under control by a superficial sense of decency or conventional obligation.

There was an old saying, "Scratch the Kossack and you find the Tartar." The moment disease of the nature indicated attacks an individual, his true underlying, and probably unsuspected, character comes out. For the evil lurking beneath the surface he is accountable, and, if he is not held responsible for the particular misdeed to which his hitherto latent propensities now impel him, he must be excused by considerations other than the vague plea that he is the victim of disease. We have urged this view of the case before, and we may dwell at greater length upon it on another occasion; but for the present our concern is with a different aspect of the subject, and to this we must pass. It will not be necessary to meddle with the philosophic phase of the question. That has been entertained and discussed with wondrous ingenuity, and without result. In what the will consists; how its controlling influence is exerted; and under what circumstances it may be interrupted so that the acts of the individual cease to be voluntary; are questions full of interest doubtless, but too metaphysical to be made the direct basis of practical reasoning. Our only hope of reaching a rational settlement of the question at issue lies in pursuing it upon the lines of a scientific inquiry.

What is impulse? We cannot proceed a step forward in the search for the truth until this preliminary point is adjusted. To say that impulse is an overwhelming longing or compelling sense of obligation to do something which often cannot be resisted, is to describe an experience, not to define a power. The statement is a story of sensations, and a silly one. The pretended victim is not sure whether he yields to an attracting influence, or is compelled by pressure driving him forward. He is not even able to say whether the *power* is external or within him. In short, he knows nothing whatever about it beyond the fact that he does something which he is afterwards sorry for having done, and which in his remorse he strives to excuse to his own conscience, and those around him, by the pretence of being "possessed," or acting "under impulse." What *is* this impulse, whereof we hear so much, and on the ground of which so many weak and wicked actions are, forsooth, to be excused?

Science knows nothing of "impulse," popularly so-called. Human nature is a compound entity. With two of the

elements entering most largely into its composition we are tolerably well acquainted. The present inquiry may be narrowed within the limits set by this knowledge. There is the animal part of man's nature, in virtue of which he possesses likes and dislikes, affinities and aversions, propensities and repulsions, *identical* with those of the lower animals provided with the same organs he possesses, and capable of performing the same functions that he performs. Given the physical organism, the propensities accruing thereto may be certainly predicated. Man is therefore capable of, and in a physical sense prone to, the commission of every brutal act of which the lower animals in the natural progression of development are capable, and to which they are inclined.

It does not require any great intimacy with the doctrines of Darwinism to make this plain. Studying the phenomena of character, in connexion with race alone, we must arrive at the conclusion that man, as man, may be a savage, one remove from the brute, or a highly moral being, as the accidents of circumstance, training, and something else affect him. It is this *something else* that forms the second element of human nature to which we alluded as falling within our knowledge. We prefer to indicate it vaguely, because its presence and potency are recognised by its effects. It is capable of being transmitted from parent to child. It may be cultivated in the species even better than in the individual. The process by which it is fostered and improved we call civilisation. In a later stage it is known as culture; in the highest development it is designated morality. Call it what you please, it is a constraining, controlling, ennobling faculty, which holds the whole being in subjection, and keeps every animal propensity in check.

Impulse is the outbreak of an animal propensity consequent on a negation of control. The inhibition of moral intelligence leaves the brutal passions unrestrained. This is no external impulse, no reduction of the man to the level of a machine. The pretence of agency is a feeble cry for coverture; it is the pitiful excuse of conscious neglect. When the moral faculty is weak, and the purely animal propensity strong, the former may fail easily and the latter readily revolt; but the hypothesis of impulse is in either case untenable. It is the animal part of the man getting the better of his moral nature simply, and nothing more. The triumph of brute propensity is a fault or a misfortune, as it results from wilfulness, neglect, or the feebleness caused by disease.

This is the view growing out of the normal laws of nature—the product of inductive reasoning. Its bearing on the question at issue is obvious. The duty imposed by society on every one of its members is the subjugation of the merely animal instincts. To steal, to prey, to spoil, to outrage, to kill, are brute propensities. The human will is empowered and may be trained to subdue and control these passions, using them as agents, instead of allowing them to gain the mastery and enslave the will. Unless it can be shown that the will is so far dethroned or enfeebled by disease as to be incapable of exercising its proper influence, responsibility certainly exists. The man who inhibits the action of his intelligent will for the indulgence of some momentary appetite is accountable for that act of inhibition, and must take the consequences for what ensues. We think the practical question of responsibility in any particular case is to be determined by the condition of the consciousness and the will. The existence of a specific delusion is good evidence that the intelligent faculty of reason is unseated. There may possibly be considerable impairment of power without a formulated delusion. In the absence of delusion, or valid proof of enfeeblement disabling the will from action, the plea of impulse is, we think, wholly groundless. There is always impulse, but impulse ought always to be constrained—by any effort and at any expenditure of moral force and self-coercion. Crime is always self-conscious, and criminality always responsible.

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THERE is no subject of more interest to the profession during the present summer months than that of infantile diarrhœa in its graver forms. Medical practice during July and August would be a comparatively leisurely and easy business were it not for the existence of numerous cases of this disease. The diarrhœa of adults is a far less serious malady, though one requiring some discrimination in practice. But the diarrhœa of children, as represented by the Weekly Returns of the Registrar-General, is a deadly disease. In large towns it seriously raises the mortality in a few weeks. Nor is it confined to the houses of the poor and the uneducated; it attacks extensively the children of the comfortable and of the intelligent, and sometimes, despite every suggestion of sense and medical science, proves fatal. In some communities it is a sort of sanitary scandal. In the great towns of the United States, for example, it is a very serious and intractable disease. Unfortunately, in some of our own English towns it prevails to a discreditable extent, and in the months of July and August slays its hundreds. Leicester is one of these towns, and we have lately had occasion to remark on the report of Messrs. BUCK and FRANKLIN on the subject. The question is one of more than professional importance; it is one of scientific and public interest. It is not a little curious that so large a proportion of the human race should die at the very outset of life. Infancy is by far the most fatal period of existence. In England fifteen deaths occur in every hundred infants in the first year of life. According to Dr. J. LEWIS SMITH, of New York, one-fourth of the children born in that city die before the age of five years. One of the parts of the system which first shows delicacy, aptness to go fatally wrong, is the intestine, so that it easily becomes not only functionally deranged, but affected with organic lesion to the extent of inflammation or even ulceration. That is to say that, apart from congenital diseases, such as syphilis, and zymotic diseases, such as scarlet fever, the intestine is apt to be fatally hurt by the ordinary rough conditions of life. *A priori* we might have thought that the human gastro-intestinal system would have been made a little stronger, so as to resist the effect of the common conditions of high temperature and various foods. But it is not so. At any rate, infants in the first year of life, and even in the second, die in thousands, while all the rest of the community is enjoying a comparative immunity from death.

We are gradually arriving at something like definite notions of the nature and the causes of this serious disease, the knowledge of which has so much to do with the comfort and the credit of medical practice. We take it as proven,

especially by Continental and American pathologists, among whom Dr. LEWIS SMITH deserves a conspicuous place, that, pathologically, these cases consist of a condition of entero-colitis—that they constitute a sort of infantile typhoid. Still we are not so accurately informed about its causes as we should be; and any practitioner deserves great praise who tries to increase our knowledge, or give precision to it. Dr. SLOANE, of Leicester, has been at great pains to find out what it is in the months of July and August that adds so enormously to the prevalence of this disease. He has come to a definite conclusion. Even if it be not a tenable one, it has the virtue of being intelligible and refutable. Dr. SLOANE is a member of the Sanitary Committee of the Borough of Leicester. He feels, as a medical practitioner, and as a member of the board which is the sanitary authority of Leicester, that the death of hundreds of babies is an opprobrium to his art, and to his borough. He has framed tables showing the wards in which the disease most prevails; the mean temperature of the months of July and August respectively; and the mean rainfall of July, August, and September respectively. He has quoted the statistics of others who have investigated the sanitary condition of houses in which fatal cases of infantile diarrhœa have occurred; the health of the father and of the mother; the occupation of the mother, especially whether of an indoor or out-door character; and he has come to the conclusion that none of these things obtain so constantly or peculiarly as to constitute the main explanation of infantile diarrhœa. His conclusion is this—that infantile diarrhœa is caused by children being fed with milk from cows which drink water contaminated by sewage. It is no new opinion that this disease is produced by the reception into the system of the products of the decomposition of organic matter, animal or vegetable, favoured by the high temperature of the summer months, especially if the rainfall is insufficient. But Dr. SLOANE'S conclusion is more definite than this; it is to the effect that cows drinking water containing sewage will have their milk so tainted as to give diarrhœa to the infants that take it. Dr. SLOANE gives minute information of the places where the cows feed in summer, gathered by sanitary inspectors posted at the various gates by which the principal milkmen enter the town in the summer months, when, Dr. SLOANE says, cows are not fed in stalls, but allowed to graze on the rich pasturage outside the town. He gives the source of the water-supply to the cows, and, roughly, the distribution of the milk in the town. He finds that in many cases the water-supply of the cows is fed by drains, and that in such cases the distribution of the milk in the town corresponds with the prevalence of infantile diarrhœa. Dr. SLOANE does not tell us that the cows themselves are hurt, nor does he tell us whether in these neighbouring localities there is any unusual prevalence of typhoid—the most unequivocal specimen of a disease produced by excrement. Much of the evidence he adduces is very imperfect; for example, we greatly question the force of his proof that diarrhœa was not a summer complaint in England fifty years ago. Further, he does not explain how on his theory, in 1873, Dr. CRANE should have found that 107 deaths occurred in infants nursed at the breast alone, especially in warm or tropical climates, nor the fact that the disease occurs in infants fed on Swiss milk, nor the fact that diarrhœa occurs in the adult population in the same months. Still Dr. SLOANE'S suggestion is so definite that we give it prominence, and ask for it the attention of all practitioners. We are inclined to the opinion that the effect of heat on the body itself, and especially on the gastro-intestinal functions, amounts to far more than Dr. SLOANE and others seem to allow, particularly when taken in connexion with teething, improper food (other than milk), and improper clothing. But if the sewage contamination theory were established, it would give a clue to the effective prevention of the disease.

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TUMOURS composed of unstriped muscular tissue are occasionally met with elsewhere than in the uterus, where they are so familiar to everyone. They may arise from any part of the alimentary canal, taking as their starting-point the muscular walls of the œsophagus, stomach, or intestines; but in these regions they seldom attain any very large size, appearing mostly as small polypoid growths beneath the mucous membrane. The following case, recorded in the current number of *Virchow's Archiv* (v. lxviii., p. 227), affords many points of interest and rarity. Here the growth, arising from the stomach as a simple myoma, became the seat of sarcomatous growth, a grafting of malignancy upon a simple neoplasm which has before been noticed in regard to uterine fibroids. The tumour, it will be seen, attained an enormous size, and, what is even more remarkable, the author states that the secondary nodules found in the liver exhibited also the microscopical characters of plain muscular tissue intermixed with sarcomatous cells. He confesses that this rare exhibition of metastasis on the part of true muscular fibre is almost unique in pathology, but he refers to one case published in the fifty-fifth volume of the same *Archiv* by EBERTH, in which a (probably congenital) "myo-sarcoma" of the kidney was accompanied by the dissemination of secondary knots in the diaphragm. The present case is related by Prof. BRODOWSKI, of the Pathological Institute of Warsaw. The patient, who was much wasted and was suffering from shortness of breath, was a man fifty-seven years of age, who was admitted in February into the surgical clinic under the care of Prof. KOSINSKI. The abdomen was as large as that of a woman in the seventh month of pregnancy, being occupied by a large, well-defined tumour passing obliquely from the left hypochondriac to the right iliac regions, its lower margin being three fingers' breadths below the umbilicus, whilst above its limits were lost in those of the liver. The tumour was slightly movable, its surface for the most part smooth and resisting, but at one spot a prominence could be felt, which distinctly fluctuated. The man's history was that at the age of twenty-five he had suffered from intermittent fever, from which he had completely recovered; at the age of forty-six he had enteric fever, but he did not exhibit any gastric symptoms until within three years of the present time, when he began to experience a sense of weight at the epigastrium, with pain in the left side, and constipation. One year later a tumour was found in the abdomen, and at that time it was considered to be a chronically enlarged spleen, a diagnosis which was later replaced by that of hydatid tumour of the same organ, as the growth increased so as to fill two-thirds of the abdominal

cavity. Prof. KOSINSKI, however, after careful examination, concluded that the growth arose from the omentum; and, having punctured the fluctuating swelling, obtained therefrom a quantity of blood-stained serum, in which some flocculent material was suspended. Microscopical examination of this material showed it to consist mainly of red blood-corpuscles and nucleated spindle-cells. The tapping afforded temporary relief, but the patient shortly succumbed. On post-mortem examination, the abdomen was found to be almost wholly occupied by an oval tumour, twelve pounds in weight, and about twelve inches in length by six inches in breadth. It was attached to the greater curvature of the stomach, and lay between the folds of the omentum, which was stretched over it, and in places adherent to it. The whole tumour was riddled with cavities varying in size from a walnut to a foetal head, all containing fluid similar to that obtained by the puncture *intra vitam*; the walls of these cavities being ragged, and beset by patches of a dark-red colour covered by small greyish-red granulations. Internally the mucous membrane of the stomach presented an ulcer on its larger curvature the size of the palm, having the prominent everted margins and other characters of a cancerous ulceration. The liver contained several well-defined nodules, the largest being of the size of an apple, some of which were softened and resembled the primary growth in appearance. The lymphatic glands were not infiltrated, and the remaining abdominal viscera were simply anæmic. The microscopical characters of the primary growth were those of a myoma—i.e., interlacing bundles of plain muscular fibres, largely intermixed, however, with spindle and stellate cells. It appeared as if the stromal connective had become the seat of sarcomatous growth, by the degeneration of which the cavities described had been formed. The masses in the liver also presented the same myo-sarcomatous characters, some of them being in places composed wholly of sarcoma tissue. Prof. BRODOWSKI believes this to be the largest myo-sarcoma of the stomach upon record, and draws attention to the fact that in the tumour itself the muscular tissue preponderated to a very large extent, justifying the inference that the growth was originally a simple myoma, that it had then become the seat of sarcomatous infiltration which involved the submucous tissue of the stomach, and which, by its rapid evolution and degeneration, had caused the great and speedy increase in the size of the tumour noticed during life.

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THE papers which have been laid before Parliament regarding our newly-acquired colony of Fiji are of more than ordinary interest and importance to the medical profession. In addition to some excellent reports on Levuka as a site for a large town, or as a site for the future capital of the colony, from which it would appear that it presents no special advantage in any point of view, but many disadvantages, particularly of a sanitary character, these Parliamentary papers furnish us with a brief but official history of the late lamentable epidemic of measles among the Fijian population. It is no new thing for a disease to spread with fatal rapidity and effect on its first introduction among a population, and in the case of measles it is stated that in the island of Maré, Loyalty Group, about one-fifth of the population died of that disease in 1860, and other islands of the South Seas suffered in like proportion. On Jan. 12th, 1875, H.M.S. *Dido* entered the port of Levuka. She had on board the ex-King Thakomban and three of his sons, who had been on a visit to Sydney, where measles was epidemic at the time of the vessel's leaving. On Jan. 6th a case of measles occurred on the voyage in the person of one of the King's sons, and on the 7th one of the Fijian servants was attacked. Both patients are stated to have been convalescent at the date of the arrival of the ship, and no other case occurred either among the passengers or ship's company, although thirty boys had been recently received on board. The patients were confined to a house built for them on deck, and all the articles of ship's bedding &c. used by them were destroyed. No sooner had the *Dido* arrived at Levuka than the Administrator and his secretary boarded the ship, the native crew that had manned the Administrator's boat were also admitted on board, and, in a short time, the whole of the passengers and their luggage were landed. Within a month the disease was raging throughout the colony, great numbers of the population sickened and died, and a veritable panic soon became established. The communications that took place between the naval and the colonial authorities were unfortunately of a verbal and not written character, and the subsequent representations of what had actually taken place vary very much. Of course, as Lord CARNARVON remarks, it is impossible for persons not present to judge of the manner and tone in which these communications were made, but it is perfectly clear that neither the colonial authorities nor indeed anyone else treated the matter so seriously as the nature of the case demanded. The usual method of procedure, where there is a quarantine organisation, is for the health-officer to go off to the vessel, and inquire whether there is any infectious disease on board, and it is greatly to be regretted that this was not done. Prudence would have suggested that some intimation should have been given, by means of a flag, of the presence of infectious disease in the ship to the people on shore; the boat's crew should have been prohibited from boarding the vessel, and the infected passengers should not have been allowed to disembark, with their baggage. On the whole, we are compelled to admit the substantial justice of Lord CARNARVON'S judgment in the matter. It is but right to state, however, that measles had long been very prevalent at Sydney, and that cases of the disease had occurred in other vessels arriving at Fiji.

This great and calamitous epidemic lends great force to the objection raised by Dr. MCGREGOR, the chief medical officer, to Levuka as the capital of the colony. There is no quarantine station to be obtained near it. A vessel put in quarantine must of necessity be anchored somewhere in the roadstead, and those persons undergoing quarantine must remain on board, as they could not be landed on the island. As it frequently happens that at Levuka vessels in the roadstead are driven on shore high and dry, it would render a vessel in quarantine as dangerous for the general community as the confinement on board ship would be detrimental to those on board in the event of an epidemic there. From all that we can read and hear, it would seem that Levuka is not a very healthy or desirable climate. It is hot and moist, the quality of the river-water is bad, laden as it is

with organic impurities, and this, with a precarious supply of rain-water, would be the only available water-supply for the capital on the contracted site of Lovuka. Heat apoplexy, fevers, including typhoid fever, and other diseases, are not uncommon.

# Annotations.

"Ne quid nimis."

## THE BRITISH MEDICAL ASSOCIATION.

AFTER a vast amount of discussion and correspondence, into the merits of which we do not care to enter, it was decided some two or three months ago, that Sheffield was to be the rendezvous for the British Medical Association this year in lieu of Brighton. So it is, and, as we write, the members of that august body are being entertained by the denizens of one of the dirtiest, but one of the most important towns in England, and being (as we suppose) edified by sundry scientific speeches and addresses. The programme indeed is fertile enough. It *looks* well. Sir Robert Christison is the President, and there is an address in Medicine by Dr. Sieveking, one in Surgery by Mr. W. F. Favell, and one in Public Medicine by Dr. Alfred Carpenter. No less than sixty-nine papers on various subjects are promised. Dr. Chadwick, of Tunbridge Wells, is the president of the Medicine section, Mr. Jonathan Hutchinson that of the Surgery section, whereas Dr. Lombe Atthill presides over the section for Obstetric Medicine, and Dr. J. B. Russell, of Glasgow, over that for Public Health. And, as a contemporary puts it, "the recreation of the members has not been neglected." Still compelled to exist in the dusty atmosphere of the metropolis, we have in our mind's eye those happy beings disporting themselves on the lawn at Haddon Hall and about the hills at Matlock, and enjoying the princely hospitality of the Duke of Devonshire, Earl Fitzwilliam, and other distinguished Derbyshire men. Armour-plates, too, are being rolled by Messrs. Cammell, and guns forged by Messrs. Firth, for the express benefit of the members, and Lord Wharncliffe has very courteously given them permission to inspect his collieries. The entire programme is certainly attractive. Medical men, both in town and country, want relaxation at certain intervals, and if the annual meeting of the Association served no better purpose, it is, on this account only, a useful and laudable piece of business. We cannot affect to believe that much real work is done by many members, or that professional knowledge is appreciably increased by any. But old friends meet, interchange their professional experiences conversationally, and tell each other of their struggles and successes. Some new acquaintances, too, are made, that ripen now and then into pleasant friendships. It is on this account chiefly that the annual meeting of the British Medical Association is a desirable and commendable sort of proceeding, to which we wish all possible success.

## FEVER AT KENSINGTON.

THE Vestry of Kensington have declared "that the statement made by Sir Henry Cole to the Metropolitan Board of Works, that typhoid fever is chronic in South Kensington, has no foundation in fact, for no death from that cause has occurred in South Kensington during the present year, and the medical officer of health of the parish is unacquainted with any cases of illness from the same disease." We believe Sir Henry Cole coupled scarlet fever with typhoid fever, but the Kensington Vestry are silent on that point, and doubtless with reason. Most persons who have had any lengthened acquaintance with Kensington will admit that Sir Henry Cole's statement, though, perhaps, somewhat strongly put, is not altogether without foundation. The present medical officer has worked manfully in improving the condition of his district, and has succeeded in effecting many great improvements, but the very points that have baffled him are those that are baffling health officers everywhere, and over which the sanitary authorities have practically no control. It was to strengthen the hands of the local boards that the Society of Arts waited on the Metropolitan Board of Works with their memorial in reference to improved supervision of house-drainage, and we venture to say the sympathies of every person interested in sanitary matters go with the memorialists. We regret, therefore, to see the Kensington Vestry practically placing themselves in opposition to a scheme at once reasonable and necessary, by raising what must be considered as a mere quibble. Surely the vicar, the Rev. W. D. Maclagan, who presided at the vestry meeting in question, must know of many houses occupied by his poorer parishioners in which the improvement of the house-drainage is urgently demanded. For our part we fully endorse Sir Henry Cole's statement with respect to the defective drainage of some of the best houses in Kensington, and we have received frequent complaints as to the unhealthy conditions produced by it. We recommend the Kensington Vestry to co-operate with Sir Henry Cole and the Society of Arts in procuring additional legislative powers, by which the present sanitary imperfections can alone be remedied.

## ASYLUM PATIENTS OUT ON PROBATION.

THE peace of the Barnsley Board of Guardians has been disturbed, and the Board and its officials generally have been provoked to show strange ignorance of the law, by a slight mistake on the part of the medical superintendent of the district asylum. A patient being sent out of that institution on the 5th of May last, under the powers given by 16th and 17th Vict., chap. 97, sec. 79, for a month on trial, a question arose *within the legal period* as to her recall. The proper course would have been to send one or two of the asylum attendants and bring her back. In place of this, the relieving officer of the district was allowed to interfere, whereupon the medical officer of the district was called upon to give a new certificate, which he did not see his way to do. The relieving officer took the patient back to the asylum, where of course, *she being still a patient of the asylum*, the woman was received without a new certificate. Then followed a series of mistakes. The district medical officer thought the patient ought not to have been sent back to the asylum without his certificate, whereas he had no more jurisdiction in the case than he would have had supposing the patient to have remained at the asylum. The relieving officer performed a service which he was not entitled to perform, and did it ungraciously. The chairman and board of guardians, assisted by their clerk, fell into the strangest bewilderment, supposing themselves to have control of patients out on probation from the asylum. Now the facts are as simple as could be desired. The woman Sunderland was a certified lunatic, under the care of the superintendent of the asylum. She was out on leave. The asylum authorities were solely responsible for her for one month from the 5th of May, and they had power to retake her during fourteen days after the expiration of the period for which she was sent out on leave, if she did not return. The Board of Guardians and their officials *had nothing whatever to do with the case*, and no power to interfere. If at any period during the six weeks the relieving officer became aware that a dangerous lunatic was at large, the proper course was to give notice to

the asylum authorities that a patient of that institution, either "on leave" or "escaped," required attention. On receiving such notice the superintendent would at once send attendants to recover his patient. The fundamental error was allowing the relieving officer to act. Superintendents of asylums should rely on their own officials, and Boards of Guardians ought to caution their officials not to meddle with matters outside their duty. The Board think "the public will be anxious to know how the woman is now." If any such anxiety exists, the guardians need not concern themselves. They have no official right to ask the condition of the patient. If the superintendent of the asylum, acting under the Commissioners, had not thought the case improving, the patient would not have been sent out on probation. We trust the superintendent will not report the present condition of the case to the Board, or recognise any intervention on their part. We would only urge that, in future, relieving officers should not be either asked or permitted to meddle with certified lunatics, for whom asylum authorities are directly responsible, to the Commissioners and the public, up to the date of discharge, or fourteen days after legal "escape," which, of course, could not occur until the expiry of the time of leave.

## M. PASTEUR UPON THE EXPERIMENTS OF DR. BASTIAN.

A COMMUNICATION recently made by Dr. Bastian to the Paris Academy of Sciences upon the Influence of Physico-Chemical Forces upon the Phenomena of Fermentation has met with a prompt reply from M. Pasteur (*Comptes Rendus*, July 17th), in a note on the Changes undergone by Urine, in which he points out what he considers to be errors in Dr. Bastian's experiments, which he has himself repeated. In his opening remarks, he contrasts the supporters of spontaneous generation with the theorisers in physics and mathematics who believe in perpetual motion or in the quadrature of the circle; and he thinks that the only reason why heterogenists are listened to at all is because of the impossibility of proving *a priori* the origin of life except from life—in other words, because biology is not yet an "exact" science. Turning to Dr. Bastian's paper, he singles out for especial comment those experiments in which bacteria appear in urine mixed with oxygen and solution of potash, and kept at a temperature of 122° F. (50° C.), the urine having been previously boiled, and all precautions taken to withdraw it from any source of contamination by atmospheric germs. M. Pasteur admits that Dr. Bastian's experiments are very exactly carried out, but he contends that a temperature of 50° C. is not sufficient to kill all the germs of minute organisms which may be introduced into the urine by means of the solution of potash. In his memoir, published in 1862, and entitled "Sur les Corpuscles organisés qui existent dans l'Atmosphere: examen de la doctrine des Générations Spontanées," he showed that acid liquids which are rendered sterile after a few minutes' exposure to a temperature of 100° C. remain fertile when made slightly alkaline; and he considers the precaution adopted by Dr. Bastian, of further heating the fluid to 50°, to be superfluous. He considers it fully proved that the germs of certain organisms which do not resist a temperature of 100° in acid solutions, are capable of such resistance in neutral or slightly alkaline fluids. In the latter case, in order to effectually destroy all germs, the solutions must be heated above boiling point — e. g., to 110° C. He therefore recommends Dr. Bastian to repeat his experiments with the additional precaution of adding solid caustic potash previously heated to redness or to a temperature of 110°, instead of employing the alkali in aqueous solution; or simply to heat the urine and liquor potassæ to 110° instead of 100°. M. Pasteur has found that perfectly normal urine rendered alkaline by a piece of solid potash undergoes no change when due precautions are taken to get rid of the contact of the atmospheric germs; and, in conclusion, he expressed the hope that Dr. Bastian would abandon his faith in spontaneous generation and in the proofs which he thinks he has given of it. At the same meeting M. Pasteur related observations showing that the urine of a healthy man is free from germs, but in the majority of cases it meets with different kinds of germs at the orifice of the urethra, or in the air in the neighbourhood, during its emission. He also described the very simple apparatus which he had employed in repeating Dr. Bastian's experiments, in which he was aided by M.M. Joubert and Chamberland.

## EPSOM COLLEGE.

FOUNDER'S DAY was celebrated here on Tuesday last, the company assembling being unusually numerous, due in some measure to the lovely weather, but chiefly to the fact that last year it was not kept in consequence of sickness among the boys. Happily this year has been free from infectious complaint. After chapel, at 1.30, the visitors, numbering about two hundred, repaired to the dining-hall, where a substantial luncheon *al fresco* was provided, the Council and a select party being entertained in the library with similar food, and allowed to sit. No speeches were made, neither was the usual toast, "To the pious memory of the founder," drunk. We think this omission is a mistake, and hope in future the Council will accept the dutiful and useful obligation of asking all who honour the day to remember him, the good John Propert, whose best memorial the Medical College is. Surely, too, it might be arranged that all comers should be seated whilst eating, and afterwards some suitable and enlivening speeches addressed, such as is usual, and which would aid and abet the good work of the college. Better, too, that the luncheon should be served after the school speeches, the Head Master acting as chairman, supported not only by the Council, but by some celebrities from both Houses of Parliament, as well as members of the three learned professions.

Speeches in the schoolroom commenced at 3.45, the *Carmen Gratulatorium* being well spoken by A. Cutfield, who proceeds to Christ Church, Cambridge, taking with him a load of honours. The "Dilemma," of Molière, by J. Jervis and F. A. Jelly, was excellent in articulation, gesture, and manner, particularly in Jervis, whose whole character made one believe him throughout to be a Frenchman. The "Sophocles, the Intruder," spoken by L. E. W. Stephens, A. Cutfield, and G. B. Hoffmeister, was as pure and classical as possible.

C. W. Beckett gave Gray's ode on the Pleasure arising from Vicissitude, translated into Latin alcaics, with great force, which made one realise the solaces of literature. A troup of Shakspereans, representing the upper forms in the school — Cutfield, Mosse, Lane, Bull, Boxall, Hoffmeister, Stevens, Jelly, Jervis, and Grayling, — acted a portion of Henry IV. like practised players, and evidenced that they at least accepted the spirit and teaching of the Master in this department of literature. The part-song which concluded this portion of the entertainment showed that music, vocal at least, is well taught in the College.

The Head Master, the Rev. Dr. West, then distributed the prizes; after which the treasurer, F. Hird, Esq., addressed the school. The Council were represented by Drs. Johnson, Carr, Felce, Bradley, and Messrs. John L. Propert, France, Dale, Mould, Hogg, &c.

The school is in a most satisfactory condition. The new infirmary is rapidly progressing, and will, if needed, be ready for occupation in the early spring.

## THE PUBLIC HEALTH IN THE THREE MONTHS ENDING JUNE LAST.

THE Registrar-General has just issued his usual quarterly bulletin upon the public health during the three months ending June last. We can only now briefly allude to one or two of its most salient features. The birth-rate was higher during the second quarter of this year than in the corresponding period of any year since civil registration was established; emigration was considerably below the average, and the death-rate rather lower than the average rate for the season. The increase to the population during the quarter was, therefore, unprecedentedly large. The temperature during the three months was generally below the average, especially during a period of fifty days ending the 18th June. The cold spring was, however, favourable to the public health; the annual death-rate in the three months being 20·9 per 1000, and 0·5 below the average rate in the corresponding period of the preceding ten years. The death-rates in the different counties ranged from 15·7 per 1000 in the extra-metropolitan part of Surrey, to 25·8 in Lancashire. Among equal numbers living, 165 persons died in Lancashire last quarter, to 100 in Surrey, excluding the metropolitan part of the county. The zymotic fatality was below the average. Measles was the most fatal disease of this class, the deaths from scarlet fever showing a further decline from the numbers in recent quarters. The deaths from fever, including typhus, enteric or typhoid, and simple continued fever, were fewer than in any quarter on record. Small-pox caused 501 deaths in England and Wales, of which 391 occurred in Lancashire (principally in Liverpool, Manchester, Salford, and Southport). The recent mortality statistics of English watering-places are, in the aggregate, very satisfactory, although a few of these are not just now in the position to furnish a clean bill of health.

## THE TEMPLE OF ÆSCULAPIUS.

THIS *chef-d'œuvre*, which, in its perfect state, would have thrown much light on ancient medicine, has to some extent disclosed itself to the excavators, who have been at work at the southern colonnade of the Parthenon since the 13th of May last. The workmen came upon two parallel walls of barbaric structure, seemingly raised on the bare rock. "Built into these walls," says an intelligent eye-witness, "among other small architectural remains, once forming, perhaps, an 'acroterium,' were two engraved stones, one of which bears the letters ΙΗΩΙ—that is to say, the last three letters of the word Asclepios, in the dative case, with the iota subscript. The other stone affords us the greater part of a relief representing two persons—the one erect and touching the other with his hand, the second half-sitting and half-reclining on a couch. The figures are much effaced, especially that of the second person; but the work appears to have been excellent. Below the standing figure is the word Ἀσκληπίῳ, and above it the word Μαχάων. Above the reclining figure are the letters ΣΤΙΩ. During the fourth week more fragments of reliefs and inscriptions were unburied." Let us hope that the excavations will proceed steadily under the same intelligent superintendence. The standing figure in the above relief represents, no doubt, the Greek physician feeling the pulse or in some way exercising his *tactus eruditus* on the person of the semi-recumbent patient. Can it be Machaon, the first army surgeon (if Podalirius was not before him) on record, in the act of performing the diagnosis which saved the life of an illustrious patient during the Trojan war? In that case the relief might be a votive tablet commemorating the gratitude of the nephew, Machaon, to the uncle, Asclepius, for the happy inspiration that guided him. ΕΠΙΩ might have reference to some medicated draught, if we may conjecture from the imperfect word. The whole discovery is full of interest, medical as well as artistic, and appetises one's expectation for further announcements in the progress of the excavations.

## THE PHYSIOLOGICAL EFFECTS OF COMPRESSED AIR.

THERE have been many observations of late upon the effects produced on the functions of the body by long immersion in compressed air; and the efficacy of the compressed air bath in certain pulmonary affections is held deservedly in high repute. Most of the observations on the subject have been made by M. P. Bert, of Paris, who supplemented his previous researches by a note read at the last meeting of the Société de Biologie. He pointed out that the mechanical effects of compressed air were to cause lowering of the diaphragm and liver, and a consequent increased pulmonary vital capacity—an effect gradual in its production, but lasting long after the subject is withdrawn from the condensed atmosphere. Other experiments have been made by M. Pravaz, of Paris, and Drosdorff, of St. Petersburg. The former finds that the heart's action is at first increased and then lessened; the pulse first becoming more rapid and then slower, but never falling below the rate at the normal atmospheric pressure. The respirations are diminished during the immersion, but on removal of the increased pressure they rise in frequency, and in direct proportion to the degree of compression of the air. There is an increase in the amount of urea excreted, but this increase diminishes the longer the sojourn in the compressed air. There is at the same time an increase in the amount of carbonic acid expired. The temperature of the body rises above the normal at first, and then falls as the immersion is prolonged. These varying effects are due, M. Pravaz thinks, to the two influences of inward atmospheric pressure and hyper-oxygenation, the former tending to diminish the circulation and the organic changes, and the other to increase them. He agrees with Waldenburg that there is a lessening of arterial tension under these conditions, but herein he differs from M. Drosdorff, who has found—first, that the inspiration of air at a low degree of compression (one-sixth atmosphere) raises the negative pressure of the thorax, and thus lowers the blood pressure in the aortic system; secondly, inspiration of air at a higher degree of compression induces active expansion of the lungs, and diminishes the negative intra-thoracic pressure, whilst lowering the expiratory power of the thorax, and hinders the passage of the blood from the veins into the arteries; hence a diminution in the arterial pressure.

## PURE WATER.

IN a letter to *The Times*, "R. E." gives an account of a piece of practical philanthropy which is highly deserving of imitation. In the village in which he lives the poor people had for years no other source for water than the filthy and poisoned ditches near their cottages. "They drank the water of a stream the privies on the side of which were within sight of their own windows!" Our philanthropist, who, we are proud to say, is a member of the medical profession, set to work to remedy this evil. He hit on a place where he fancied, if he went deep enough, he might strike a vein of pure water. In spite of the discouragement of the professional well-sinker he dug deeply and persistently, and the evil presages of the professional gentleman, after a fortnight's labour, were swept away by a burst of water which nearly washed him and his men out of their lives. The Drinking Fountain Society kindly gave

a granite basin and its fittings, and the Doctor, at his own cost, laid on the water, built the necessary brickwork, and provided for the proper drainage. The results were most gratifying, and we envy "R. E." the feelings of pleasure he must experience in witnessing the use made of this noble gift—pure water. For not only is it a source of "refreshment and comfort to hundreds," but it has "stopped many a threat of disease." There are many places at present ill supplied with pure water where, with a little trouble and expense, an abundant supply could be obtained; but, alas! sanitary authorities generally ignore matters that cause even the slightest trouble or expense, whilst local philanthropists usually prefer riding some impracticable hobby, which brings them a measure of notoriety to schemes of solid, but unostentatious, benevolence.

## HEALTH COMPETITION IN WATERING PLACES.

THE anxiety which watering places now display to present a tempting bill of health to their wished-for clients is a satisfactory sign of the increasing importance which is now attached to the sanitary condition of health and holiday resorts. This anxiety, however, often leads to statements which are as untrustworthy as they are amusing. The *Malvern News* has recently been publishing, in a conspicuous part of its columns, an advertisement, well spaced out in capital letters, setting forth that the Registrar-General had reported the death-rate in Malvern during the fourth quarter of 1875 as not exceeding two per 1000! Such a low death-rate was not even suggested as possible in Dr. Richardson's Hygeia. There can be no difficulty in coming to the conclusion that this statement involves a palpable blunder, and also that, in all probability, it was not derived from any Report of the Registrar-General. The health reputation of Malvern is deservedly high, and cannot be increased by such an error being ostentatiously paraded. The parish of Great Malvern had, in the middle of 1875, a population which may be estimated at about 8300 persons, among whom 117 deaths occurred during that year—equal to a rate of 14·1 per 1000 persons living. The annual death-rate in the four quarters of the year declined from 17·8 per 1000 in the first to 10·6 in the fourth. Remarkably low as is the last-mentioned rate, it is more than four times as high as the impossible rate advertised by the *Malvern News*. In the Registrar-General's Quarterly Return, just published, it appears that the annual death-rate in the area taken to represent Malvern, during last quarter, was only 11·5 per 1000. The true death-rate of Malvern affords the strongest evidence of satisfactory health and sanitary condition.

## COMPARATIVE RESEARCHES ON MILK.

LANGAARD has recently made some comparative researches on human milk, and that of the mare and of the cow. He corroborates the statements made by Biedart in regard to the differences between the milk, and especially between the casein, of the cow and that of humankind. Langaard notices that in koumiss the casein exists in the form of extremely fine flocculi. He finds that mare's milk (*stutenmilch*) is of alkaline reaction when fresh, and retains its alkalinity for two or three days, but then passes into an acid fermentation. It does not then, however, like cow's milk, assume a gelatinous form, but the casein separates in small flocculi. Dilute acids precipitate the casein immediately, but it is readily soluble in an excess. In the case of cow's milk the casein falls in dense masses, which do not readily redissolve in an excess. Alcohol and tannin precipitate the casein of mare's milk completely. If the casein be precipitated by alcohol and deprived of fat by ether, it may be obtained in the form of a fine, loose, slightly yellow powder, that resembles the casein of human milk in its solubility in water, dissolving much more easily than the casein of cow's milk. The watery solution is slightly opalescent, foams on being shaken, and has a neutral reaction. The dry casein is digested as rapidly as that of the woman. Langaard suggests that it would answer well as a preserved preparation.

## THE HEALTH APPOINTMENT AT LIVERPOOL.

WE have received several letters on this subject, which is naturally enough attracting a great deal of public attention in and around Liverpool. There is really little more to say about the subject, the particulars of which are now, as we suppose, before the Local Government Board. We have, however, to remark that the reasons given by Mr. Robert Hamilton for not signing the memorial to the Local Government Board appear altogether irrelevant. The profession at Liverpool, and, indeed, elsewhere, were bound to suppose that when an important and responsible post becomes vacant, the proper means will be adopted to fill it; and until the election was over, it would have been a piece of impertinence for the medical practitioners or any other section of the inhabitants to have interfered with the action of the corporation. In discussing the merits of this question we know nothing of political proclivities, for so important an appointment has an interest far beyond the municipality of Liverpool. It is difficult to see how (as suggested by Mr. Hamilton) the medical men of the town can, by the action taken, have laid themselves open to "motives other than those which appear on the face of their petition." But we are glad, at the same time, to know, from the discussion that took place on the 19th ult., that many councillmen are fully sensible of the undignified conduct of the corporation respecting this very responsible appointment.

## ANNUAL REPORT OF THE LOCAL GOVERNMENT BOARD FOR IRELAND.

WE learn from this Report, which is of an extremely interesting character, that the average daily number of persons receiving relief in workhouses during the year was 44,800, and outdoor relief 30,246, which, compared with similar returns for the previous year (47,113 and 30,319 respectively), shows a material decrease in the number of workhouse inmates. During the year, 47,967 persons were under treatment in the workhouses for various affections, including 8015 cases of fever, with a mortality of 11,470. Last year, 495,530 new cases were attended by the dispensary medical officers at the various dispensaries throughout the country, and 198,662 were treated at their own homes, forming a total of 694,192; whilst 137,340 people were vaccinated or revaccinated during the same period. The total cost of the dispensary districts for the year ending the 29th September, 1875, was £141,452 2*s.* 4*d.*, which includes cost of medicines and medical appliances, salaries of medical officers, apothecaries and midwives, rent of dispensary buildings, &c.; the salaries of medical officers alone being £87,174 10*s.* 8*d.* During 1875, there were 543 deaths from small pox, 494 of these occurring in the province of Connaught, the disease prevailing in the most virulent form in the unions of Claremorris, Loughrea, Swineford, Tobercurry, and Tuam. The Board urge the necessity of vaccination being made more complete and general, and draw attention to the 58th section of the Public Health Act (Ireland), 1874, which enables any justice of the peace to make an order for the vaccination of any child under the age of fourteen who has not been successfully vaccinated nor has had the

small-pox, upon information of the facts being given to him by any registrar or officer appointed by the guardians to enforce the provisions of the Vaccination Acts; but it does not appear, the Commissioners observe, that this power has been exercised hitherto, or, at all events, not to any extent.

## INFANTILE DIARRHŒA IN LONDON.

THE Registrar-General, in his last Weekly Return, reports that infantile diarrhœa showed a greater fatality in London during the last fortnight of July than at any previous period since 1837, when civil registration was first established. The nearest approach to a similar fatality from this disease occurred in August, 1871. During the two weeks ending 29th July, 979 deaths were referred to diarrhœa in London, in addition to 49 deaths from choleraic diarrhœa or simple cholera; of these 1028 deaths, 84 per cent. were of infants under one year of age, 12 per cent. of children aged between one and five years, and only 4 per cent. of children and adults aged upwards of five years. Hitherto London has suffered from a higher death-rate from diarrhœa this summer than the other large English towns furnishing weekly returns, although in the last week of July the deaths from this disease showed a marked increase in Leeds, Leicester, Bristol, Newcastle-upon-Tyne, and Sunderland. During the week ending 29th ult. the annual death-rate from diarrhœa in Inner London was equal to 7·8 per 1000, whereas in the Outer Ring it did not exceed 4·8, although the disease showed exceptional fatality in West Ham and Stratford. The diarrhœa-rate during this week ranged, in different parts of London, from 6·0 per 1000 in the central, to 10·0 in the north groups of registration districts. As evidence of the fatal effect of the recent heat upon infant life, it may be noted that during the two weeks ending 24th June, when the temperature was below the average, 561 deaths of children under one year of age were registered; during the two weeks ending 29th July the number of deaths of infants registered rose to 1717, or more than three times as great. Thus in two weeks the lives of 1156 infants were sacrificed, more or less directly to the heat.

## VACCINATION AND YAWS.

AN interesting communication bearing on these subjects has been received by Drs. Tilbury Fox and Farquhar, the editors of the "Report on certain Endemic Skin and other Diseases of India and Hot Climates generally," from Mr. N. W. Keelan, medical officer to the Poor-house Lunatic Asylum and the police force, Dominica. Mr. Keelan believes that he has discovered in compulsory vaccination a sure and certain means of mitigating, if not of altogether stamping out, the disease called "yaws," or "framboesia." The grounds on which this belief is based are, first, that out of several hundreds of cases of yaws attended during a series of years very few indeed had been vaccinated; secondly, that the few who had been vaccinated were attacked very mildly by yaws, and were easily cured, the disease being apparently modified and much more amenable to treatment than the ordinary form; thirdly, that a considerable number of the patients who came suffering from yaws were vaccinated, but the lymph took effect in only a small percentage, though in these cases vaccination seemed to act beneficially.

These important propositions have been again and again submitted by Mr. Keelan to the test of experiment and observation. If it can be shown that vaccination is competent to prevent or to modify the distressing yaws malady, so prevalent in our West Indian colonies, another powerful argument will be gained in favour of compulsory vaccination. The pathological relations of yaws and vaccination remain yet undiscovered. Dr. Bowerbank has alleged that yaws does not seem to interfere with the occurrence of, or to modify, other diseases such as syphilis, vaccinia, and the acute febrile diseases, while others have imagined that they have traced a similarity between yaws and syphilis. Of late years most observers seem to have agreed that yaws is essentially a disease developed *sui generis*. Mr. Keelan may, perhaps, have opened the way to a more complete knowledge.

## HOSPITAL SUNDAY, 1876.

IT may be accepted that the Hospital Sunday collection for 1876 will amount to at least £20,000. This, though still inadequate to the purpose, and incommensurate with the wealth of London, is a very gratifying sum. It is larger by three or four thousand pounds than last year, and may be considered a proof that causes of difference and dissatisfaction have been in a great measure removed, and that the collection has secured a solid place in the esteem of the London churches. It would be well if the committee could so arrange its distribution as to remove every reasonable cause of offence. This would not be difficult. The institutions in London that are injured by the Hospital Sunday could be counted by the fingers, if not by the thumb, of one hand. Every dissatisfied institution tends to injure the collection in the district of London in which it is situated. There is no reason in allowing one respectable institution to be the worse for Hospital Sunday. It should be established as a rule that no institution should be awarded less from the fund than it has been in the habit of receiving from local collections. If this rule were carried out, the churches would be at full liberty to throw all their strength into the collection, and we do not think so poorly of London Christianity as to believe that £30,000 is the highest possible annual collection for the sick poor.

## EDINBURGH UNIVERSITY CLUB.

THE quarterly dinner of this Club was held on Tuesday, August 1st (capping day), at St. James's Hall, when there was a good muster of members and guests to meet the chairman for the occasion, Sir Joseph Fayrer, K.S.I. Among those present were the Right Hon. Lyon Playfair, M.P., Dr. Priestley, Dr. Dickson, R.N., Surgeon-Major Combe, R.A., &c. The meeting was a very pleasant one, and there was not that suffering from heat that is generally associated with the August meeting. Dr. Duckworth, in the name of the Halley Memorial Committee, presented a handsome punchbowl to the Club, and this was christened in the usual manner. The pleasure of this social gathering was much enhanced by the singing of Dr. Lavies, Dr. Thomas Hamilton, and others, an Indian native song being much applauded. In the course of the evening the usual congratulatory telegrams were exchanged between the Club and the Professors of the University.

## BOY SOLDIERS.

THE suicidal practice of sending very young and immature men—boys, in fact—to fill the ranks of our troops in India cannot be too forcibly condemned, or too often brought under the notice of the home authorities. Another illustration of the grievous manner in which this class of soldiers break down under climatic influences is now presented by the 2nd battalion of the 25th Regiment, stationed at Fyzabad. The battalion arrived from England last November, and ever since its arrival at Fyzabad, usually regarded as a most healthy place, it has suffered severely. First there were several cases of cholera, then enteric fever showed itself, and deaths from heat apoplexy were not un-

common. At the latest date there were nearly a hundred men in hospital, most of them suffering from fever. "It was remarked on the regiment landing," says an Indian contemporary, "what a number of boys were to be seen in the ranks, and this is no doubt a cause of much of the sickness. A few years ago the authorities ruled that no man under twenty was to be allowed to embark for India, but these rules have become so altered or modified that now practically there is no limit of age. So long as Government persists in sending out unripe boys as soldiers so long will the hospitals be crowded with sick."

## INDUCTION OF PREMATURE LABOUR.

THE induction of premature labour is an operation increasingly wanted in practice, and men of large obstetric experience do good service in critically estimating from time to time the value of the respective methods of procedure. Dr. Godson has published a paper on the subject from the St. Bartholomew's Hospital Reports. After enumerating various methods — puncturing the membranes, the administration of ergot, the injection of water into the vagina, the more dangerous injection of warm water into the uterus, the injection of carbolic acid or atmospheric air into the uterus, galvanism, the application of a sucking-pump to the nipples, the separation of the membranes with the finger, the insertion of a long gum-elastic catheter, dilatation of the vagina, dilatation of the os uteri by elastic bags and sponge tents,—Dr. Godson concludes with a decided preference for dilatation by sponge tents. He some time since expressed this opinion in our columns. He adheres to this preference, and justifies it by reference to twenty cases. Ten children were born alive; one mother died of puerperal fever, then prevalent in the hospital; the rest did well. The tent is easily introduced, without using the speculum, with the help of an instrument specially devised for the purpose.

## PORT SANITARY WORK.

IT appears that, although cholera does not at present exist in any part of Europe, the officers of Customs are fully alive to the importance of preventing its importation. A correspondent wrote to a daily contemporary last week to the effect that, a severe case of diarrhœa and vomiting having occurred on board a steamship from Ostend between Gravesend and Greenwich, the Customs officer in charge would not permit any communication with the shore until the case had been investigated by the port sanitary authority. One of the sanitary inspectors of the corporation was, however, close at hand, and the medical officer having been summoned, no inconvenient delay occurred. As the writer alluded to remarks, "it is satisfactory to know that the Customs and the Corporation staff are co-operating cordially and constantly to prevent the introduction of epidemic disease at this season of the year."

## LEUCOCYTES.

IN an interesting thesis, M. Henri Bonne has described a series of observations on the proportion of white to red blood-corpuscles in different diseases, made under the direction of M. Brouardel. The examinations were made daily by the methods of MM. Malassez and Hayem. Among the facts recorded are the following. In a patient with cancer of the breast, before its removal by operation, the white corpuscles were 1 to 48 red; three days afterwards they were 1 to 28 and 1 to 23. When suppuration was established the proportion fell to 1 in 60, 1 in 90, and at last, when the pus ran freely, 1 in 400. In two cases of iliac abscess the leucocytes, before the abscess was opened, were 1 to 18 in one case, 1 to 38 in the other. Immediately after, the white corpuscles fell to 1 in 132 in one case, and to 1 in 130 in the other. In other abscesses the same result was obtained. It thus appears that the formation of pus in an abscess coincides with a considerable increase in the leucocytes in the blood, and that the increase disappears when the abscess is opened. Similar results have been found in other suppurative maladies. In small-pox on the fifth day the leucocytes were 1 in 450; on the sixth day 1 in 48; on the seventh day 1 in 150; on the ninth day 1 in 236. In a case of suppurating pneumonia the white corpuscles at death on the ninth day were 1 to 40 red. Other influences besides confined suppuration cause leucocytosis. An eruption of herpes in one patient raised the number in four days from 1 in 80 to 1 in 90. In typhoid fever the leucocytes are very numerous about the seventh day, but fall to from 1 to 70 to 1 to 500 by the seventh day. Their number does not coincide with variations of temperature.

## THE PROPAGATION OF DISEASE.

THE trade association of the plumbers of Liverpool have, by means of a deputation, been representing to the workhouse authorities the risks run by workmen employed in their fever and small-pox wards. It appears, however, that these workmen are not only likely to be victims, but are still more likely to victimise others. For a member of the deputation is said to have stated that "men after working for a short time in a fever or small-pox ward were drafted by their employers, perhaps, to a gentleman's house." It does not to our thinking matter very much whether the house is or is not that of a gentleman, but there can be little doubt that workmen are under these circumstances sometimes the conveyers of contagious disease. Small-pox and fever wards in hospitals are, however, not very numerous either in London or the provinces, and it is really worthy of consideration whether, when workmen are employed in these buildings during their occupation by the sick, some special precautions should not be taken to prevent mischief by propagation.

## SURGICAL PRACTICE IN INDIA.

SOME useful practical notes indicating the amount and variety of surgical practice that occurs to civil surgeons in India have been forwarded to us by Staff-Surgeon Geoffrey Craythorne Hall, of the Bengal army, but who is at present acting as civil surgeon at Futtehghur. Remarking parenthetically upon the terror that most natives have of the knife, and their unwillingness to come to the Government dispensaries for treatment until every hakim in the neighbourhood has been consulted, he records briefly particulars as to nine cases of lithotomy, ten eye operations, two tumour cases, as well as an amputation, an excision, and several other special operations, the results of rather more than two months' practice in the above-named district. The cases are too loosely reported to be commented upon separately; but if this be a fair specimen of the amount of surgical practice obtainable in the East, Anglo-Indian officers have small chance of becoming professionally rusty.

## HEALTH OF CARDINAL ANTONELLI.

IT is true, as the reports in the press and on the exchanges represented, that the Pope's Cardinal secretary has been ill, but the symptoms were not so serious as was given out. Cardinal Antonelli has for some time suffered from gout, supervening on Bright's disease of long standing. Though a confirmed invalid, he is still equal to the onerous duties of his post, and is generally able to visit the Holy Father personally, and to confer with him on matters of state every day. On one of these occasions recently he was

seized with a fainting fit and had to be carried from the Pope's presence to his sleeping apartment, where he kept his bed for forty-eight hours. He is now able to resume his wonted avocations.

## DR. BROWN-SEQUARD'S LECTURES.

WE are authorised by Dr. Brown-Séquard to state that the report published in a contemporary is only a summary of the Lectures from the notes of a reporter, and that he cannot be responsible for it, having not seen either the manuscript or the proof. THE LANCET has begun, and will continue to publish, with full details, not only what Dr. Brown-Séquard delivered at the College of Physicians, but a number of facts which, from want of time, he was unable to narrate on the occasion. The concluding part of Dr. Brown-Séquard's first lecture of the series (the whole of which will be specially supplied and revised by himself for our columns) will appear in THE LANCET of next week.

## THE BRIGHTON CORPORATION AND THE PUBLIC HEALTH ACT.

THE Sanitary Committee of the Corporation of Brighton has resolved, under the advice of the town clerk, not to prosecute the appeal from the recent decision of the magistrates of Croydon in the case of a lady at Croydon who dispatched her servant with the measles to Brighton. The Croydon magistrates determined that the servant sent for the cab after being paid her wages, and therefore when she could no longer be considered under "the care" of her mistress. The decision is valuable to mistresses, as showing an easy way of evading their duty and the Public Health Act. We greatly regret the resolution of the Sanitary Committee, who should have prosecuted to the full, for the purpose either of vindicating the law or showing its inefficiency.

## THE MILITIA MEDICAL SERVICE.

IT is very noteworthy that complaints are made on all sides of the action of the past and present Governments in regard to the medical profession in the public services; and, practically speaking, these complaints are identical in respect of one point—viz., that they charge the Government with breaches of faith, or breaches of contract. The militia surgeons are, as might be expected, loudly protesting at the present time against being disestablished, by being deprived of the emoluments of their posts, without any compensation, and, as their case is a very simple and plain one, they are sure to organise some plan of making it known in the House of Commons.

## THE BRAVO INQUIRY.

IT must be evident that no organ of the medical profession can notice the proceedings in the Bravo case, editorially, while the judicial inquiry is in progress, without violating the obligations of good taste and public propriety. There can, however, be no objection to mentioning that we understand the difference between Sir William Gull and Dr. George Johnson has been referred to the President and Censors of the College of Physicians, the fitting tribunal for adjudication of questions medico-ethical.

MR. J. PRIOR PURVIS, public vaccinator, has published some statistics of vaccination at the vaccination station, Greenwich. Mr. Purvis, in concluding, urges the desirability of inserting in the next amendment to the Vaccination Acts a clause legally defining the number of vesicles necessary to constitute vaccination, and fixing four as the minimum number, and also of making revaccination at puberty compulsory.

WE are glad to find that an Act for regulating the practice of medicine has at last been passed by the Californian Legislature. In no part of the world has quackery ever been so rampant as in California, and the evil grew to such extensive proportions that one or two newspapers devoted themselves specially to its castigation, publishing week by week the name of every man who practised without being in the possession of a diploma. The public were thus taught whom to avoid. The provisions of the Act are as follows: Every person practising medicine or surgery, or any specialty connected with either, is required to present to a board of examiners his diploma or licence, with satisfactory evidence of its genuineness; and, on complying with these terms, he receives a certificate which entitles him to practise throughout the State. The board also examines persons not having diplomas, and to those who give proof of sufficient knowledge of medicine and its branches it grants certificates. The board has the power of ignoring the licence of any physician who has in the past associated with charlatans, "or who has habitually violated the code of ethics." It has also the power of revoking certificates.

THE annual meeting of the Medico-Psychological Association was held on the 28th ult., in the hall of the Royal College of Physicians, under the presidency of Dr. Parsey, of Warwick. There was a very large attendance of members. Dr. Parsey delivered an address dealing with the provision which he thought should be made for the chronic insane at present filling up the wards of our county asylums. He spoke approvingly of the Scotch system of boarding out the chronic and harmless cases in private houses, and urged its adoption in the rural counties of England. Dr. Clouston read a paper "On Attendants on the Insane," advocating a systematic professional training being given them. Dr. Lalor read a paper "On the Education of the Insane." In connexion with this paper, Dr. Hack Tuke commented on a recent report of the Charity Organisation Society, dealing with the education of the harmless insane, the idiotic and imbecile; and the Association, on the motion of Dr. Tuke, resolved to give a general support to the recent proceedings of the Society in regard to this question. The president of the Association for 1877 is Dr. Blandford.

THE Manchester and Salford Sanitary Association, whose efforts on behalf of the public health are most praiseworthy, have embodied some interesting results of a comparison of the state of the weather and diseases in their recently published annual report. From a study of the attacks of measles in 1875 in connexion with the meteorological chart, it was found that this disease occurred when the rainfall was slight, when there was little wind (and that from the west), and when the temperature was low. Measles then would seem to vary with the rainfall, being essentially a disease of droughty weather. The number of cases of scarlatina was greatest in the end of July and beginning of August, and, on examining the state of the weather at the same time, it was found that there was a low temperature, heavy rain, a north wind, little movement of wind, and very little ozone. In effect, scarlet fever apparently coexisted with wet as measles did with dry weather. Whooping-cough was marked by great amount of change of barometer, with north and east winds, while as regards diarrhœa and dysentery the number of cases varied directly with the height of the thermometer.

WE understand that Surgeon-General Longmore, C.B., Lieutenant-Colonel H. Brackenbury, and an officer of the Carriage Department, Royal Arsenal, are about to proceed to Brussels, to report to the War Department on the articles and appliances in the Exhibition.

THE foundation-stone of the new Infirmary of the Union of St. George's, Hanover-square, was laid last week in the Fulham-road, within a short distance of the Brompton Cemetery. The proposed building is designed to accommodate 840 patients, and comprises surgeon's residence, offices, and a chapel. It is planned on the block system, having seven pavilions, connected by a corridor on the ground-floor 11 feet in width. Each pavilion is four storeys high, and each floor, with the exception of the ground-floor, contains a large ward, 84 feet by 24 feet, capable of containing twenty-eight patients, with lavatories, bath, &c., attached; a small ward, 24 feet by 12 feet, where four patients can be isolated in case of infectious disease, together with a lift for such patients as are bedridden. The wards, 13 feet in height, are lighted by casemate windows, nearly the length of the wall, and ventilated by means of zinc panels in the ceilings, communicating with the outer air. Mr. H. Saxon Snell is the architect.

MR. DYKE, Medical Officer of Health for Merthyr Tydvil, has published a brief annual report of the condition of the town. The death-rate during the past year was 21·9 per 1000 annually, a diminished rate as compared with previous years, and attributable to the absence of any contagious fevers. Merthyr and its suburbs contain a large mining population, who last year suffered from the circumstances of a lessened rate of wages, irregular labour, increased price of food, and an inclement autumn season. It was observed, however, by the profession in the district that the cases of sickness were less frequent and of a milder character than in any previous autumns and winters. This Mr. Dyke ascribes to the diminished consumption of alcoholic fluids. It appears that the Local Board of Health has, within the last twenty-five years, expended a quarter of a million of money in perfecting various sanitary measures and improvements in the town.

IN London last week 1973 deaths were registered, giving an annual death-rate of 30 per 1000. There were included 7 from small-pox, 28 from measles, 38 from scarlet fever, 9 from diphtheria, 46 from whooping-cough, 19 from different forms of fever, and 522 from diarrhœa. The fatal cases of small-pox, measles, scarlet fever, and fever, were below the corrected average, whereas there was an excessive fatality from diphtheria, whooping-cough, and diarrhœa. Eighty deaths were due to different forms of violence. The Fever and Small-pox Hospitals at Homerton and Stockwell contained 238 patients on the 29th ult., 118 of whom were under treatment for scarlet fever, and 67 for small-pox. The latest returns from continental cities show them to be fairly healthy, with the exception of Berlin, which has a death-rate of 49 per 1000. In India, Calcutta and Bombay are to be congratulated on a diminished rate of mortality.

MR. HUTCHINSON on Tuesday introduced a deputation from the British Medical Association to the Home Secretary for the purpose of laying before him the resolutions recently passed at a meeting in London on the subject of the Vivisection Bill. Mr. Hutchinson said the medical profession thought that it was impossible to modify or change the present Bill so as to make it unobjectionable. It would be much better to allow legislation on the subject to rest for another session. They made this suggestion in the belief that the tone of public opinion had veered right round to the view of the medical profession, that many acquisitions of knowledge resulted from the practice of vivisection which would be lost to the profession if the Bill became law. Mr. Hutchinson then formally handed in the resolutions, which have been already published. Mr. Cross thanked the deputation for the expression of their views.

As we go to press we learn that Dr. Lush will, in the House of Commons, ask the President of the Local Government Board if he will state the reasons why he has recently refused to confirm the appointment of medical officers of health for a longer period than one year, and on what grounds it is believed that such a limitation of tenure is likely to operate beneficially in securing activity and efficiency in the performance of the duties of sanitary officers.

AN infirmary for the reception and more effectual treatment of the sick poor residing in the several parishes forming the Greenwich Poor-law Union was formally opened on the 27th ult. The building is not a pretentious one, but due regard has been paid to the important matters of space, ventilation, and light, and we have no doubt it will fully serve the purpose for which it was erected.

MR. GEORGE HUGH KIDD, President of the Royal College of Surgeons in Ireland, and the leading obstetric surgeon in Dublin, has been selected to succeed the late Dr. John Ringland as Master of the Coombe Lying-in Hospital, Dublin.

WE are glad to state that Sir William Fergusson's health is so much improved that he was enabled a few days ago to leave for Scotland. Dr. Farre is also very much better.

THERE seems to be little doubt the Vivisection Bill will be one of the Government measures withdrawn from the present session of Parliament.

IT is announced that the ex-Queen Isabella of Spain has appointed Dr. William Jelly, of Madrid, to be her personal medical attendant.

## CEREBRAL LESIONS.

*To the Editor of* THE LANCET.

SIR,—In reply to Dr. Broadbent's communication of last week, referring to a case of Cerebral Hæmorrhage with Aphasia, recently published by me in your journal dated July 15th, page 81, and suggesting that I should supplement the same by a detailed statement of the patient's condition before his admission into the infirmary—in other words, how the attack came on,—I have to state it was no oversight on my part such was not published with the case, but the extreme difficulty in obtaining reliable and accurate information in such cases, and particularly when a man is found in the streets, and consequently all the knowledge to be obtained must be derived from bystanders, speaks for itself as to the value or non-value of such statements. In the case in question I spared no pains or labour to obtain all the information I could as to how the attack came on, his habits and previous history for some years past, and gladly lay it before your readers—such of it at least as I know can be depended on.

Up to a few minutes after 8 P.M. the same evening as his admission into the infirmary he had not complained of anything amiss, and was engaged in his usual work as a messenger, which that night consisted in taking out weekly papers, and had barely got three hundred yards from the office when he was observed to stagger and walk unsteadily, immediately afterwards falling down on the pavement. A crowd gathering, it was decided to carry him in a chair to the infirmary, where he was admitted in the condition described by me.

This was all the information I could obtain, save also that he had been somewhat intemperate in his early life.

Before concluding the subject of this letter, however, I should wish to correct an erroneous impression which I fear exists in Dr. Broadbent's mind as to whether there was aphasia or not. This I cannot doubt. I have no hesitation in saying that there was true aphasia in the commencement, and not the speechlessness of indistinct articulation result-

ing from the shock of the apoplectic attack alluded to and thought probable by Dr. Broadbent. Later on in the case the aphasia disappeared, and he answered questions distinctly. Hence my remark, "Aphasia was not a marked symptom."

I am, Sir, your obedient servant,

Worcester, August 1st, 1876. JAMES WILSON, M.D.

## BIRMINGHAM.

*(From our own Correspondent.)*

AT the quarterly meeting of the Town Council, held to-day, the Mayor announced that although the confirming Act in reference to the Birmingham improvement scheme had not actually passed, it had virtually done so. A slight opposition had arisen on the part of one landowner at the last moment, which might for a time delay the passing of the Act, but it was not sufficient to prevent his asking the Council to approve the various purchases made by the Improvement Committee, and the total cost of the same (£716,958). He stated that owners of property had largely facilitated the setting on foot of the Artisans' Dwellings Act by acknowledging the utility of the scheme and their willingness to assist in its development. Mr. Alderman Chamberlain, M.P., after stating that the purchase-money would very likely be much less than the original estimate, suggested that the Improvement Committee should have the power of purchasing lands required for the improvement scheme, but that they should submit to the Council from time to time for approval the plans or methods they proposed to adopt. His amendment was carried unanimously.

Hardly has the newest park (Summerfield) been opened to the public when a new gift of a somewhat similar sort is announced. This time it is a piece of ground three acres and a half in extent, in a crowded part of the town, which a generous Birmingham manufacturer, Mr. Wm. Middlemore, proposes to set apart as a playground for the poor children of the district. Playgrounds are not less wanted than parks, and this excellent example will, we trust, induce others also to help to minister to the wants of our rising generation of workmen and labourers.

The first park that Birmingham obtained was only in 1857; now we have six parks, four given by benevolent landowners, and two purchased by the corporation. Playgrounds have not been inquired for hitherto, but in the future they will be found not less valuable than the parks have proved to be.

The quarterly report of Dr. Hill, medical officer of health, just issued, states that the death-rate for the past quarter was 21·17 per 1000, being less than that of the corresponding quarter of the three preceding years. There have been no deaths from small-pox, and a much lower rate from zymotic diseases. The birth-rate for the quarter was 42·21 per 1000.

The annual meeting of the Birmingham and Midland Eye Hospital took place recently, when it was reported that there had been 818 in-patients and 8851 out-patients admitted during the year. There were 45 beds, of which 36 had been occupied on an average throughout the year. The financial report was very satisfactory. The committee reported that Mr. Arthur Bracey had resigned the office of honorary surgeon, which he had held for ten years in such a way as to win the esteem of all connected with the institution. The medical report showed that there had been 145 operations for the removal of cataract, 84 for the formation of artificial pupil, and 80 for excision of the eyeball. A resolution was carried that no honorary surgeon of that hospital should hold office as ophthalmic surgeon in any other eye institution or medical charity. Certain alterations of rules, the object being that in future the election of honorary medical officers should be made at a special meeting of a committee of election, consisting of the trustees, the committee, the medical staff, and twenty governors of the charity, to be chosen by the committee, were proposed by Mr. Solomon, and postponed to a special meeting of the governors.

A conference of chemists and druggists, which was largely attended from all parts of the kingdom, was held on July 11th, when it was resolved to form an association for the protection of trade interests and the defence of registered chemists and druggists from illegal and vexatious applications of the Adulteration Act.

The Birmingham Medical Institute have opened their new rooms at Queen's College, and have secured the services of a paid sub-librarian. Several purchases of books have been made, and the young institution is appealing for funds to enable it to become even more useful and valuable to the medical public of this district.

Our local literature has received a valuable addition by the publication of "The Literary Remains of S. W. Langston Parker." The biographical memoir by Mr. Wm. Bates is truthful and honest. The work, which has a preface by Mr. Parker's son, is tastefully got up, and it will be welcomed by many who still cherish the memory of one who was in his day deservedly popular, and whose merits as a surgeon were thoroughly acknowledged.

Birmingham, 1st August, 1876.

## THE ACCIDENT ON BOARD THE "THUNDERER."

*(From our Special Correspondent.)*

AT the date of the last issue of THE LANCET there were thirty-one men and one officer of the *Thunderer* in hospital. There are now only twenty-one men and one officer remaining, ten men having been discharged cured during the period.

The list hung up outside the gate shows two very dangerously and two dangerously ill, and the others doing well. There is a decided improvement in this over last week's report; and I may observe that, although the word "dangerous" is still properly used, the surgeons in immediate attendance (Messrs. Goodman and Burgess) are very hopeful that they may be able to blot the word out altogether in a few days, the patients generally are progressing so favourably. Still we must not be too sanguine, for there is a great deal of prostration in these cases still present. The cases being so reduced in number, Deputy Inspector-General Loney is able to group them all in the lower and best ward of the three, and thus insure better attention (if that were possible) than they have had hitherto.

Several of those remaining will be discharged in the course of the next week.

Haslar, August 2nd, 1876.

## PARLIAMENTARY INTELLIGENCE.

### HOUSE OF COMMONS.

#### INDIAN MEDICAL SERVICE.

Lord G. HAMILTON, replying to Colonel Jervis, said that no alteration had been made in the furlough regulations of medical officers of the Indian army, and in regard to pensions.

#### RURAL WATER-SUPPLY.

In reply to a question regarding the polluted condition of the water used for domestic purposes in some of the rural districts, Mr. SCLATER-BOOTH said the Government had, during the last two sessions, done their utmost to bring a pure and ample supply of water within the reach of rural districts. In 1873 a sum of only £1902 was sanctioned to be raised in these districts for obtaining a better supply of water, while in 1874 the amount rose to £16,628, in 1875 to £31,274, and during the current year it was £23,000.

#### CORONERS.

Sir W. V. HARCOURT asked the First Lord of the Admiralty whether he would consider the expediency of laying down the rule that a person appointed to the office of coroner in districts which include the great naval ports of the country should not at the same time hold employment under the Admiralty.—Mr. WARD HUNT replied that the matter was now engaging his attention.

MEASLES IN FIJI.

Mr. WARD HUNT, in reply to a question, said he was unable to apportion precisely the blame attaching to the naval and colonial authorities for the introduction by a ship of war of measles into Fiji, but was disposed to think that the greater portion of the responsibility lay on the colonial authorities. He could not absolve either the captain or doctor of the ship from blame, and he informed them that he disapproved of their not having treated the matter more seriously. It was treated as a mere child's disease.

POLLUTION OF RIVERS.

After a protest from Dr. LYON PLAYFAIR, who said the public knew nothing of the recent changes which had been made in the Bill, several amendments, chiefly verbal, were introduced into the Bill.

# Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen were admitted Members on July 27th:—

Burrell, Edwin, M.D. Aberd., Endsleigh-street.
Dixon, Edward Livesey, M.D. St. And., Preston.
Dreschfeld, Julius, M.D. Wurzburg, Manchester.
Holland, Edmund, M.D. Lond., Titchfield-terrace.
Warner, Francis, M.D. Lond., Birmingham.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the required examination for the diploma, were duly admitted Members of the College at meetings of the Court of Examiners on the 27th, 28th, and 31st ult., and 1st and 2nd inst.:—

Bailey, George S., Launceston, Cornwall.
Blackader, Alex. Dougall, B.A., M.D., Montreal, Canada.
Bouton, George Charles, L.S.A., Dinan, France.
Brett, John, North Kensington.
Chawner, Alfred, Ryde, Isle of Wight.
Christian, John, Barrow, near Oakham.
Clapp, Robert, Teignmouth.
Clark, Frederick, L.S.A., Fenchurch-street.
Conolly, Paul Bennett, Somerset-terrace.
Cumming, Robert F., Exeter.
Davies, John, L.S.A., Treorky, South Wales.
Duke, Thomas, Kennington-park-road.
Dunn, Hugh Percy, Warkworth.
Dutton, Edward G., L.S.A., Hammersmith.
Evans, William M., Cardiff.
Fell, Thos. K., L.S.A., Ulverstone, Warwickshire.
Gaisford, Martin, Ilfracombe.
Garbutt, J. Gilliott, L.S.A., Prince's-square, Bayswater.
Gay, Charles W. E., L.S.A., St. Albans.
Gibson, William, Middlesboro'-on-Tees.
Gilbert, Hy. Langton, M.D., Sherbrooke, Canada.
Griffiths, Gilbert Saunders, L.S.A., York-street.
Gross, Charles, Erith, Kent.
Hare, Evan Herring, Putney.
Harris, Arthur Byam, Wootton-under-Edge.
Heald, Robert, Sleaford, Lincolnshire.
Hindle, George, L.S.A., Over Darwen.
Irving, John C., Dunnington, near Spalding.
James, Joseph Brindley, Hackney-road.
James, Joseph R., Sirhowy, Monmouthshire.
Johnson, George S., Savile-row.
Johnson, Thomas, Birmingham.
Jones, David, Llandysil, North Wales.
Jones, Thomas, Ningpo, China.
Kellie, George I., Dunbar, Haddingtonshire.
Lacey, Chas. W., Cotes, Langboro', Leicestershire.
Lewis, Daniel G., Merthyr Tydfil.
Low, Frank H., Blackheath.
May, Arthur W., Launceston.
Mears, William Pope, Bromley-by-Bow.
Metcalfe, Peter H., Bungay, Suffolk.
Michell, Henry Slyman, Truro, Cornwall.
Middleton, Charles F., Sydney, New South Wales.
Mortimer, John, Exeter.
Moullin, Charles W. M., Porchester-terrace.
Nicholson, William R., Burnley, Lancashire.
Norman, Walter, Adelaide, South Australia.
Palmer, L. Harold, Haverfordwest.
Parker, William Herbert, L.S.A., Cheltenham.
Parkinson, Sidney George, L.S.A., Northampton.
Perry, Francis Frederick, Hornsey-road.
Pratt, Walter, Billesdon, Leicestershire.
Price, John, Harrow.
Pye, Walter, Ealing, Middlesex.
Reynolds, William Percy, Norwood-road.
Richardson, T. Arthur, Newport, Pembrokeshire.
Roche, Eugenius Alfred, L.S.A., Sunderland-terrace.
Sankey, Herbert R. O., Cheltenham.
Slatter, Oliver Thomas, Chepstow.
Smith, Tom, West Bromwhich.
Smith, Ernest Sutton, Stanhope-street, Hyde-park.
Snell, Edward A., L.S.A., Richmond, Surrey.
Strover, Walter, L.S.A., Jersey.
Thomas, John R., Llanelly, South Wales.
Todd, John, L.S.A., Blackheath.
Turner, Edward Beadon, Sussex-gardens, Hyde-park.
Walker, Hyde E., L.S.A., Balsall, near Birmingham.
Walker, William, L.S.A., Bath.
Webb, John R. W., Fairford, Gloucestershire.
Weiss, Herbert Foveaux, Chester-terrace.
White, Charles Haydon, Tufnell-park.
Whitsen, John, Sutton St. Edmonds.
Williams, Alfred G., Carmarthen.
Wood, Edward Joshua, Higham.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine and received certificates to practise on July 27th:—

Bain, David Stuart Erskine, The Elms, Newbury.
Bourke, Ulick Joseph, Castlebar, Ireland.
Harris, Wm. Spencer Cisben, Middenhall, Suffolk.
M'Carthy, Justin M'Cullum, Oakengate, Salop.
Moullin, James Alfred Mansell, Porchester-terrace.

The following gentlemen passed the Primary Professional Examination on the same day:—

Herbert Arthur Smith, Middlesex Hospital; Timothy Curtis Denby, Leeds Hospital; James Harrison and Henry Browne, St. Bartholomew's Hospital; John Edward Andrew, Manchester Hospital.

SURGEON-MAJOR CUFFE and Surgeon Shepherd have been ordered from Woolwich to Shoeburyness, as a temporary arrangement, to take medical charge of the camp of Artillery Volunteers.

THE Bath Guardians have granted to Mr. Richard T. Gore a superannuation allowance of £100 per annum upon his resigning as medical officer to the workhouse after nearly forty years' service.

LUNACY appears to be still increasing in Ireland. At the close of last year the number of patients under the supervision of the inspectors-general was 11,777—an increase of 194 on the preceding year.

MAGISTERIAL APPOINTMENTS.—Richard Jones, Esq., and Charles William Marriott, Esq., have been placed on the Commission of the Peace for the borough of Leamington.

AT the last fortnightly meeting of the Lichfield Rural Sanitary Authority the clerk was directed to give notice to the other sanitary authorities—viz., the Burton and Penkridge Rural and Lichfield and Rugeley Urban, that they (the Lichfield Rural Authority) would withdraw from the present combined appointment of a medical officer of health at the expiration of his three years' term of office in February next.

BEQUESTS TO MEDICAL CHARITIES.—The annual Report of the Huddersfield and Upper Agbrigg Infirmary acknowledges the receipt of £3999 under the will of Mr. W. Haigh, and £600 under that of Mr. Joseph Hirst. Mr. Thomas Procter, of Elmdale, Clifton, bequeathed £100 each to the Bristol General Hospital and the Bristol Royal Infirmary. Mr. T. Dyer Edwardes has given a second £100 to the Chelsea Hospital for Women.

# Medical Appointments.

BERNARD, D. E., L.R.C.P.Ed., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer to the Clifton Union Workhouse, vice Hodges, resigned.

BRADLEY, S. M., F.R.C.S.E., has been appointed Lecturer on Practical Surgery at Owens College Medical School, Manchester (the Professorship of Surgery being retained by E. Lund, F.R.C.S.E., who had previously held it conjointly with the late G. Southam, F.R.C.S.E.)

CASSAN, T., L.R.C.P.Ed. & L.M., M.R.C.S.E., L.S.A.L., has been appointed Resident House-Surgeon to the Evangelical Protestant Deaconesses Institution and Training Hospital, Tottenham, vice Macfie, resigned.

EARBY, W., M.D., has been appointed Medical Officer to the No. 2 District of the North Witchford Union, and Public Vaccinator for March, Cambridgeshire, vice Stanger, resigned.

EVANS, S., L.R.C.P.L., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer of Health for the Harwich Port Sanitary Authority.

FAIRBROTHER, A., M.D., F.R.C.P., has been appointed Consulting Physician to the Bristol Royal Infirmary, after twenty years' service as Physician.

FLEMING, T., L.A.H.D., has been appointed Apothecary to the Workhouse and the Croom Dispensary District of the Croom Union, co. Limerick, vice Inman, resigned.

HAINES, R., L.R.C.P.Ed. & L.M., L.F.P.S.G., L.A.H.D., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c. for the Walshtownmore Dispensary District of the Midleton Union, co. Cork, and Sanitary Officer for the Walshtownmore Sub-district of the Midleton Rural Sanitary District, vice Buckmaster, resigned.

HARRISON, C., L.R.C.P.Ed. & L.M., L.F.P.S.G., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Kilcatherine Dispensary District of the Castletown Union, co. Cork, vice Lyne.

HODGES, J. F., M.D., F.C.S., has been appointed Public Analyst for the County Donegal, at £25 per annum and 10s. per analysis.

LYNE, D. J., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer for the Castletown Dispensary District of the Castletown Union, co. Cork, vice Armstrong, resigned.

MAJOR, H. C., M.D., has been appointed Lecturer on Mental Diseases at the Leeds School of Medicine, vice Browne, appointed a Chancery Visitor of Lunatics.

NOLAN, Dr. C. J., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Shanagolden Dispensary District of the Glin Union, co. Limerick, vice Hayes, resigned.

PEARSE, J. S., M.R.C.S.E., L.R.C.P.L., has been appointed Assistant-Surgeon to H.M. Convict Prison, Parkhurst, vice Walker, appointed to Portland.

PHELPS, W., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer and Public Vaccinator for the Yarmouth District, Isle of Wight Union; also Medical Officer of Health for the same District of the Isle of Wight Rural Sanitary Authority, vice Taylor, resigned.

SHAW, J. E., M.B., has been appointed Assistant-Physician to the Bristol Royal Infirmary, vice Waldo, appointed a Physician.

SPARROW, G. G., L.R.C.P.Ed. & L.M., M.R.C.S.E., has been appointed House-Surgeon to the West Sussex, East Hants, and Chichester General Infirmary and Dispensary, vice Cotton, resigned.

STUART, J. P., M.B., C.M., has been appointed an additional Public Vaccinator for the Gosberton District of the Spalding Union.

SYSON, E. J., L.R.C.P.Ed., L.R.C.S.Ed., has been reappointed Medical Officer of Health for the Caxton, St. Neots, and Stamford Rural, and St. Neots Urban Sanitary Districts, at £351 for one year; also for the separate Whittlesey Rural Sanitary District, at £40 for one year.

THOMAS, D., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer and Public Vaccinator for the Festiniog District of the Festiniog Union, vice Williams, deceased.

WALDO, H., M.D., has been appointed Physician to the Bristol Royal Infirmary, vice Fairbrother.

# Births, Marriages, and Deaths.

## BIRTHS.

AITKEN.—On the 21st ult., at Albert Cottage, Copland-road, Govan, the wife of John Aitken, M.D., of a son.

CONDON.—On the 18th ult., at Southsea, Hants, the wife of E. H. Condon, M.D., Surgeon-Major, Army, of a son.

DALY.—On the 28th ult., at Kingston-Bagpuize, Berks, the wife of Joseph Harding Daly, L.R.C.P.L., of a son.

LYON.—On the 28th ult., at Kent-terrace, Dalkey, co. Dublin, the wife of Richard St. John Chinnery Lyon, L.R.C.P.Ed., of a daughter.

MOORHEAD.—On the 29th ult., at Charleville, Dalkey, the wife of Hamilton Moorhead, M.D., of a son.

PEART.—On the 2nd inst., at Dockwray-square, North Shields, the wife of R. S. Peart, M.D., of twin sons.

SANSOM.—On the 24th ult., at Duncan-terrace, City-road, the wife of Arthur Ernest Sansom, M.D., of a daughter.

SHAROOD.—On the 23rd ult., at Headland-park, Plymouth, the wife of Edward Julian Sharood, M.D., Staff-Surgeon R.N., of a daughter.

SWAN.—On the 20th ult., at The Elms, Gosberton, the wife of Richard Jocelyn Swan, M.R.C.S.E., of a son.

THOMSON.—On the 24th ult., at Argyll-place, Partick, the wife of William Cooper Thomson, M.D., of a son, still-born.

## MARRIAGES.

HIRST—MANGNALL.—On the 26th ult., at the Parish Church, Prestwich, Albert Hirst, M.R.C.P.Ed., to Ada, daughter of the late William Mangnall, Esq.

LITTLE—WILLISTON.—On the 2nd inst., at St. Michael's-in-the-Hamlet, Liverpool, by the Rev. James Hassal, M.A., Dr. Little, Dingle-hill, to Miriam Sylvia, only daughter of John Williston, Esq., of Elm House, The Dingle, Liverpool.

LOUGHRED—DAWSON.—On the 25th ult., at Knocknarea Church, Sligo, by the Rev. William Day, M.A., Joseph F. Loughead, Surgeon-Major, late 21st Fusiliers, to Elizabeth, only daughter of the late Thomas Dawson, Esq.

## DEATHS.

ANDERSON.—On the 23th ult., at Moira, co. Down, Despard Anderson, L.K.Q.C.P.I.

CARR.—On the 16th ult., at Trafalgar-square, Scarborough, William Carr, M.R.C.S.E., aged 29.

CHAMPNEYS.—On the 28th ult., at Cowes, Henry Laurence Champneys, M.R.C.S.E. (eldest son of Henry Montagu Champneys, F.R.C.S.E., of Penge), aged 22.

CLARKE.—On the 30th inst., at Lisle-street, Leicester-square, James Howard Clarke, M.R.C.S.E., of Gerrard-street, aged 39.

DAVEY.—On the 29th ult., at Eastbourne, Edward Myhill Davey, M.R.C.S.E., L.R.C.P.Ed., of Florence Villa, Old Ford-road, Bow, aged 43.

DUNCAN.—On the 30th ult., at Tunbridge Wells, Robert Duncan, M.D., aged 65.

LLOYD.—On the 19th ult., at Gilfachwen, Llandyssil, Thomas Charles Lloyd, L.R.C.P.Ed., aged 32.

LONSDALE.—On the 23rd ult., at his residence, Rose-hill, Carlisle, Henry Lonsdale, M.D., aged 60.

MARTYN.—On the 27th ult., at Woodend, Pertenhall, Kimbolton, Samuel Martyn, M.D., of Clifton, aged 48.

OWEN.—On the 30th ult., at Abergele, Thomas Owen, L.S.A.L., aged 71.

RITCHIE.—On the 17th ult., at Edinburgh, Robert Ritchie, Surgeon, aged 74.

SMITH.—On the 23rd ult., at Edinburgh, John Smith, M.D., aged 74.

STONEHOUSE.—On the 19th inst., at Horsforth, Yorkshire, Cornelius Stonehouse, M.R.C.S.E., aged 49.

TATHAM.—On the 25th ult., at Kendal, Edmund Tatham, L.R.C.S.Ed., aged 79.

**[N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*]**

# Notes, Short Comments, and Answers to Correspondents.

### CHOLERA IN CALCUTTA.

AN outbreak of cholera took place some time back in Gon Bagan, Calcutta, and the investigation into the attendant circumstances of the visitation, made by Mr. Arthur J. Payne, health officer, revealed some shocking conditions. On the first intimation of the presence of the disease, Mr. Payne visited the place, saw several cases, and ascertained beyond doubt that there had been no misrepresentation. The huts in which the cases occurred were situated around two tanks, containing a fluid used as water by the people. From one of these they drank, and in the other they bathed and washed cooking utensils &c. The water of both tanks was analysed, and found "to occupy a place intermediate between urine and liquid sewage." It could not apparently be otherwise from the conformation and condition of the adjoining land. "There is not," said the health officer, "a thought of drainage, scavenging, or cleansing in any form. The places are indescribably filthy, and the atmosphere is that of a midden privy. Pits have been dug at short intervals, and into these the people have voided their excrement until it has overflowed. Then new pits have ben dug, or the surrounding surface has received the deposits. The pits are not covered in when abandoned; but their contents are left to ferment and decompose as they may, and to be distributed over the whole place with the first shower of rain." Thus the people live on soil saturated with and largely composed of excrement; they drink excrement in the water and bathe in liquid sewage, and the air they breathe is thick with poisonous exhalations. It is a matter of surprise that the disease should ever quit so congenial a home. It would be difficult to devise any sanitary organisation which could work successfully among the native population, who are unprovided with the most ordinary appliances of cleanly life, and who indeed may be said to be partial to filth. Provided in such profusion with all the fixed elements of cholera causation, Calcutta is never free from the disease, and awaits only the annual return of seasonal influence to give it epidemic force. In one spot this year, in another the next, the health authorities have to meet it as best they can. But it is confessed that "the root of the evil remains untouched, and the fruit must continue to be reaped until it be possible to change the habits of the people."

*J. D. J.*—Consult a surgeon, and avoid quacks.

### A CASE IN OBSTETRICS.

*To the Editor of* THE LANCET.

SIR,—On the 7th inst. I was consulted by Mrs. C——, a healthy woman, thirty years of age, on account of a very large abdominal tumour, which she said she had not noticed until six weeks ago, and she complained of great and constant pain in the right lumbar region. She stated that on the 5th November, 1875, she was delivered by instruments of a dead child, being her tenth, and that she had had one miscarriage and one "false conception." Her last menstruation was finished on the 14th of February, 1876, and the mammæ now presented marked signs of pregnancy.

On examining the tumour I could not detect any fluctuation, nor could either of two other medical gentlemen who happened to be with me. There was not the irregular hardness which often indicates the presence of a fœtus; but there appeared to be a large, solid, movable mass, which, however, could not be isolated. Upon vaginal examination I reached the os uteri with great difficulty, and found it slightly patent, but the cervix perfectly firm. I did not attempt to pass the sound, because the woman very much objected to my doing so, and as she desired to get into a hospital, I sent her to St. Thomas's, where she was seen by my friend Dr. Robert Cory; but he was unable to take her as an in-patient. At half-past four in the afternoon of the 14th inst. I visited her at her own home, and found that labour had commenced, although the cervix still remained for the most part unyielding, with a somewhat hard mass occluding the os internum. At half-past eight I called again, accompanied by Dr. Cory, when we could distinctly feel a portion of distended membrane protruding into the cervix, but in other respects very little progress had been made, and as the patient was becoming very weary we resolved on dilatation. Dr. Cory introduced Dr. Barnes's bags, and I was able gently to inject a fair quantity of water; but the bags were three times expelled by the action of the uterus, and after the third expulsion there came a rush of from twelve to fourteen pints of liquor amnii, followed by the birth of a living fœtus. Twenty minutes afterwards I found a second fœtus tightly grasped by the vagina, and almost immediately after extracting this I discovered a bag of membranes just coming through the os, and containing a third fœtus, which soon made its exit. The first two fœtuses had one amnion between them, the third had its own, and there was one placenta common to the three. The last fœtus, which had the most flesh, weighed nine ounces. All three lived for about half an hour, and then died. The mother is recovering satisfactorily.

I would venture to ask a corner in your journal for this case, as it may be useful to young practitioners. The only thing suggestive of fluid, as the cause of the tumour, was its sudden and rapid growth.

I am, Sir, yours truly,

Sackville-street, W., July 17th, 1876. JOHN GILL, M.D.

### CURE OF A SUPPOSED CASE OF HYDROPHOBIA WITH STRYCHNIA AND WOORARA.

IN the last number of the *American Journal of the Medical Sciences*, Dr. B. A. Watson describes a supposed case of rabies canina cured with strychnia and woorara, the latter used hypodermically. It does not appear certain that the disease was true rabies, although another person bitten by the same dog died with unmistakable symptoms of the malady.

*Dr. Logan D. H. Russell* is thanked.

### THE ARMY MEDICAL WARRANT AND INDIA.

THE new Army Medical Warrant does not appear to have been regarded with any feeling of satisfaction in India, if we may judge from the tone of the Indian press and the number of communications which have reached us from that country. Promotion to the rank of surgeon-major at the end of twelve years' service is hailed as an act of justice, and the effect that compulsory retirement at sixty years of age for the seniors of the administrative ranks will have in accelerating promotion is, of course, recognised; but the *Pioneer* points out that the old-standing grievances have not been redressed, that forage has not been restored, and that the bulk of the working men of the department of from fifteen to twenty-five years' service gain nothing by the Warrant. Our contemporary dwells strongly on the point urged by our correspondents—viz., that by the rate of pay laid down for service in India, the young medical officer will be, in reality, paid less for his first five years' service in that country than he would receive at home.

*J. C. W.*, (AYR.)—Permission to practise must be obtained from the French Government.

### MILK.

*To the Editor of* THE LANCET.

SIR,—Scarcely a week now passes without some fresh instance of the propagation of disease by milk being brought to light; and as the unknown cases may reasonably be supposed to be far more numerous than the known, it is high time that the subject of milk as human food should receive a searching investigation. The milk brought round to our doors contains many more things than casein, sugar, or oil-globules; and I trust that this note, if of no other use, will be the means of drawing closer attention to it, and of eliciting scattered but probably valuable information in the possession of your readers.

To begin at the beginning: Has fresh-drawn milk any vital influence remaining in it, or is it merely a mechanical mixture? It has been believed that strong mental emotions of the mother affect the infant; it is certain that her health modifies the secretion, and we know that many substances are conveyed through it. Will the habitual use of milk from particular animals tend in time to influence our bodily structure or mental disposition? I am now speaking of milk drank in an unaltered state, while it still retains unchanged many qualities of the animal from which it is drawn. A few suspicious instances have passed under my notice in the course of years and travel, one of which I will mention. A Spanish lad, of true *sangre azul*, was really one of the funniest boys I ever met with. His movements were quick, abrupt, and ever on the change. He was truly capricious. Now his relatives would have it that his peculiar temperament was entirely owing to his having been fed in infancy on goat's milk. Should there be anything in this, it is within the region of possibility that milk from the placid short-horn would rear milder-natured children than that from "game" Devons or semi-wild Scotch cows. It is an interesting fact, however, that in many countries milk is not preferred in its fresh unchanged state. In Iceland sour buttermilk is much relished, and in the East equally so the fermented product *koumis*. The New Zealanders for years looked on cow's milk with abhorrence, considering it a kind of excrement, and it is only the younger Maoris who care to drink it even now. Yet allowing an indefinite amount of the ideal to be combined with the real in such cases, there can be no doubt that milk from animals not in sound health should be avoided, and it is so obvious that any taken from those suffering from actual disease would be dangerous that I will pass at once to the contamination of milk after it has been drawn.

The outbreaks of typhoid fever from this cause have hitherto been traced to a mixture of foul water, or to its use in washing the dairy utensils; but those who have been behind the scenes of carelessly kept dairies know of other impurities in milk which the consumer little thinks of. Without gentleness and great cleanliness, the udder generally gets chapped or ulcerated, and at the commencement of each milking an exudation of blood, if of nothing else, finds its way into the pail. Again, there are pustular diseases which are not only carried about from cow to cow, but break out on the milker's hands. All this is not very nice; but it is better to have it known, nevertheless. What can we do, then, under the circumstances? The only thing I can suggest, if we do not abandon the use of milk altogether, is to give it a thorough boiling. This will probably destroy any infection or fever germs.

Those establishments called "Dairy Farms" (generally dairies without farms), which have sprung up in the neighbourhood of large towns, must be credited with much of the evil I have just referred to. They are generally nothing more than "manufactories" of milk, and the object is to get as much as possible under the circumstances. How different are such places to farms away in the country! A recollection of some places in Devonshire is a contrast indeed. There the cows, after roaming the meadows, file homewards, carrying with them a pleasant milky odour. They arrive in a large airy yard, and the milkmaid goes to each in turn with her bright pail and three-legged stool. The mistress has her eye on everything, and there is scouring and scrubbing if possible almost to a fault. In fact, the keynote of all is cleanliness. Now let us look at a place or two I know. To enter them I would not think of asking you. As we near the "Dairy Farm" an overpowering stench from the pigstye salutes us. There is to some of these places not a single field attached, and the only way the cows can get any air and exercise is by walking about a small yard covered with filth. In this yard, and probably not far from the odoriferous pigstye, stands usually the well; it is so very convenient just there. Now glance at the utensils and at the milk-*men's* hands! There are hundreds of people in London who daily drink milk which has run the gauntlet of such impurities. The present system of tracing the cause of an outbreak of fever to some dairy is only locking the door after the horse is stolen.

Enough has now probably been written to indicate the numerous influences of a deteriorating and even dangerous character nature's most perfect aliment may have to submit to before reaching our homes. There are inspectors of meat and fish. It is of immense importance that the public should be protected from bad milk, and the most efficient plan appears to me to license all dairies which sell milk for human food, and to subject them to authorised inspection.

I am, Sir, yours &c.,

Southampton, July 30th, 1876. HENRY WHEELER, F.R.C.S.

### THE MICROSCOPE.

MICROSCOPY has taken its place among the refined recreations of cultivated society. In the study, sometimes even in the drawing-room, the youth acquires a familiarity with the instrument which will yield many an hour of intellectual amusement in his rural or seaside *villeggiatura*. If preparing for the medical profession, he will at once feel the benefit of having thus early familiarised himself with an implement which has wrought such a revolution in the sciences on which medical practice is based. In this stage of his microscopic experience he will find a good treatise on the mechanism of the instrument useful, and such a treatise has just been provided for him by Dr. Pelletan. In a portable octavo volume, Dr. Pelletan describes in detail the construction of the microscope, and the application of micrography to the study of the organic tissues, whether of the vegetable or lower animal kingdoms, and illustrates the exposition by numerous engravings selected with good judgment. The style of the volume, like that of most French scientific treatises, is clear and even attractive. The publisher is Masson.

*L. F. P. S.*—Dr. Balfour's book, recently reviewed in our columns, will be found sufficient for both purposes.

### CONCENTRATED MEDICINES.

*To the Editor of* THE LANCET.

SIR,—As bearing on the danger attending the practice of prescribing concentrated medicines, and also as an interesting case of recovery after taking one grain of strychnia, the following, I think, is worth a record.

On several occasions I had given a personal friend an ounce bottle containing six drachms of tincture of perchloride of iron, and two drachms of solution of strychnia. He had instructions, and it had been his habit, to put this quantity into an ordinary quart wine bottle, fill it up with water, and to take half a wine-glassful two or three times a day. On this occasion he put it into the bottle, but, having no water at hand, omitted to fill it up. Two days afterwards, quite forgetting this omission, and after partaking of a hearty breakfast, he went to take the medicine as usual, and drank off the whole of this strong mixture at a gulp. He immediately experienced a sense of burning and constriction at the throat, which went off on drinking a glass of water. Even then it never occurred to him that the medicine was undiluted. He walked from Brixton to Westminster without feeling any ill-effects. On his arrival at the office, however, and about an hour after taking the dose, he began to feel strange about his legs and chest, and shortly afterwards had a distinct tetanic convulsion. His legs shot out, he could hardly open his mouth, and had great difficulty in getting his breath. A medical man who was sent for gave him a dose of sal volatile, and ordered him to be taken home. He was put into a cab, and sent down to me. Fortunately I was at home, and, knowing what he had been taking, at once recognised the symptoms. I immediately gave him an emetic of sulphate of zinc, twenty-five grains, which acted in about ten minutes, and caused him to vomit about a quart of fluid mixed with partly digested food, stained quite black by the iron. He was put to bed, kept perfectly quiet, and given the following draught:—Tincture of belladonna, tincture of iodine, of each one drachm; water, one ounce and a half. Repeated again in an hour. This seemed to have a great effect on the spasms; they gradually decreased in severity and number, and in two or three hours he was out of danger. For some days he felt shaky and nervous; but a week at the seaside put him all right.

This result might have been a very unpleasant one for me, and ought to serve as a warning. Several of this gentleman's friends knew of his taking medicine under my advice. If he had died the bottle would have been discovered, this strong mixture found, and of course it would have been said I had poisoned him with an overdose of strychnia. No one would have imagined that an intelligent man would have drunk off such a strong medicine, and not have remembered the circumstance of neglecting to dilute it. It was not till four days afterwards that this omission suddenly occurred to him.

I shall not prescribe concentrated medicines again in a hurry.

I am, Sir, your obedient servant,

Guy's Hospital, Aug. 1st, 1876. CHAS. GROSS, M.R.C.S.

### THE NEW PARIS HÔTEL DIEU.

THE principal offices will be placed in the buildings looking towards Notre Dame, and the rooms for the sisters at the other extremity towards the river. The chapel will be erected for a time in one of the wings; but a chapel is eventually to be built quite separately, and surmounted by a dome or cupola. The wards are placed in distinct blocks, eight in number, separated by gardens, with flower-beds, shrubs, and fountains. The aspect will be altogether cheerful, and the separation in blocks conducive to health.

### INDIA-RUBBER STOMACH-TUBE.

*To the Editor of* THE LANCET.

SIR,—It appears that I cannot claim priority of invention for the application of india-rubber to the stomach-tube, but my purpose is practically answered in drawing the attention of your readers to what, doubtless, is a great improvement in this particular, and is worthy of general adoption. I was not aware, however, until your correspondents Drs. Campbell and Toeswill informed me, that my suggestion had been anticipated. The idea occurred to me in connexion with the use of the india-rubber catheter in a case of enormous prostatic enlargement now under my care. When I first saw the case to which I allude, some fourteen months ago, the prostate had attained the size of a large hen's egg, and it now fills the cavity of the pelvis, and has caused considerable dropsical effusion in the left lower extremity. The patient or his attendant has been able to pass this catheter since it has become needful to use one for several months, and as a consequence the irritation from decomposition of the urine has been thus far obviated. The only drawback seems to be the indefinite prolongation of the patient's suffering, which in this instance has been relieved by the subcutaneous injection of the meconate of morphia, the prolonged use of which appears to be exerting a withering effect on the enlargement and partial subsidence of the œdema of the leg.

I remain, Sir, yours faithfully,

Scarcalles, Carnforth, July 30th, 1876. J. WARD, M.D.

### A New Chief Veterinary Surgeon to the Army.

THE appointment of a new principal veterinary surgeon to the army appears to have taken many by surprise, as it is twenty-three years since such an appointment was last announced. Staff Vet. Surgeon James Collins, who has been appointed to the post, entered the army in 1854, and served with the Inniskillen Dragoons during the Crimean war. Some years later he proceeded to India, where he remained until he was called home in 1873. "We feel certain," says the *Veterinary Journal*, "that the department will be benefited by the appointment, as Mr. Collins has had a large and varied experience on active service as well as during peace at home and abroad, and that those reforms and improvements which have been so long and so urgently required will receive attention. Great discontent prevails, and not without good reason. If this can be removed, and the department brought up to the level of modern requirements, Mr. Collins will deserve the thanks of army veterinary surgeons, and will also have conferred a benefit on the country."

### Accidental Hæmorrhage in a Girl of Thirteen, five months Pregnant; Delivery at full time of a living Child; Adherent Placenta.

*To the Editor of* THE LANCET.

SIR,—The following case presents features which seem to me to make it worthy of a place in your columns.

J. R——, aged thirteen years and two months, began to menstruate at twelve years of age. On October 16th, 1875, she jumped off a hen-house to the ground, a height of about six feet. Immediately afterwards she was seized with pain in her abdomen, accompanied by a discharge of blood. This was, however, not severe at the time, and she continued at her work, that of a nursemaid, during the remainder of the day, also on the following two days, but still having pain and discharge. On the evening of the 18th, whilst nursing a child, she suddenly commenced to bleed violently, and speedily fainted. I was sent for, and on my arrival found the patient, a well-developed girl, in bed in a state of collapse. Two chamber utensils were shown to me, one of them being almost full of clotted blood, the other apparently containing blood and water mixed. There was also a quantity of blood about the floor and bedclothes. The hæmorrhage had ceased. I found her to be about five months in the family way. There was no evidence of labour going on. She was ordered to be kept in the recumbent posture, to have cool drinks and light diet. A mixture composed thus was prescribed: Gallic acid, one drachm; dilute sulphuric acid, two drachms; tincture of opium, twenty minims; infusion of roses, eight ounces: two tablespoonfuls to be taken every two hours. This mixture was taken for four days, but there was no return of the hæmorrhage.

On February 15th she was delivered, after being in labour about six hours, of a living and very healthy male child. The placenta was adherent to the fundus to the extent of about a five-shilling piece. It was removed as carefully as possible by detaching with the index-finger; but on account of the struggles of the patient it was quite impossible to remove it as carefully as desired, and undoubtedly some portions of the placenta were left adherent. This, however, had no ill-effect on the patient, for she made a very rapid recovery. I suppose that the adherent portion represented the extent of placental separation, which, doubtless, occurred at the time of the accident.

Yours &c.,
Flixton, Yorks, July, 1876. ALFRED KENDELL, M.R.C.S. Eng.

### Gelseminum Sempervirens in Neuralgia.

DR. JURASZ, of Heidelberg, has used the tincture in five cases of neuralgia. In the first case, five drops three times a day (facial neuralgia); cured in three days. Second case of the same kind as the first, four drops three times a day; cured in six days. Third case, supraorbital neuralgia, ten drops three times a day; cured in four days. Fourth case, neuralgia of the fifth pair on both sides, five drops every day; cured in two days. Fifth case, severe sciatica, eight drops three times a day; almost cured in fifteen days, and complete cure was then obtained by the continuous current and warm baths. The gelseminum failed to relieve a hemicrania of old standing, and was also unsuccessful in two cases of muscular rheumatism.

### The Yeovil Board of Guardians.

WE should be glad of all particulars of the adjourned discussion on Medical Officers' Fees, and of Mr. Garland's obstetric case.

### County Coroners and Medical Practitioners.

*To the Editor of* THE LANCET.

SIR,—I forward the following particulars to you for insertion, should you have space in your valuable journal.

At the present time I am acting as a *locum tenens* in a country practice in Suffolk. Amongst my patients was a young man, the son of poor but respectable people, aged twenty-nine years. He had been employed in London at one of the large West-end firms, but had left there some months since on account of his health. He was evidently suffering from depression of spirits and hypochondriasis, with more or less congestion of the liver. On July 22nd I heard that his dead body had been discovered in the neighbouring river the previous night. The following Monday, July 24th, was appointed for the inquest, which duly took place, and a verdict of "Suicide whilst in a state of unsound mind" was returned, so I am led to understand by one of the witnesses. Now, Mr. Editor, there is not the slightest doubt as to the soundness of the verdict; but on what grounds that verdict was returned I am perfectly at a loss to understand, as no medical evidence was demanded, although easily to be obtained. I hear that the clergyman of the parish was a witness, and he stated that in his opinion the man was of unsound mind; so that his evidence as to the state of the deceased man's mind was considered more reliable than that of the medical practitioner whose care he was under, and who had seen him within forty-eight hours of the fatal fact.

I thought I would send you the above particulars, as clearly illustrating the way in which inquests are conducted in our enlightened England in the year anno Domini 1876.

Yours obediently,
July 26th, 1876. L.R.C.P.

### The Eucalyptus Globulus.

THE Italian Government, persuaded by the success of the Trappist brotherhood of San Paolo fuori le mura di Roma, that the Eucalyptus globulus has a beneficial influence in malarious districts, has presented to the landholders of Italy large supplies of slips of the tree for the purpose of forming plantations where its virtues seem required. The Government also intends to grow the Eucalyptus along the boulevards of the large cities and even along the various lines of railway throughout the kingdom. Landholders themselves are following the initiative of the Government, and in a few years Italy expects to drive malaria as effectively from the borders as ague has been expelled from those of Lincolnshire.

### Army Medical Service.

*To the Editor of* THE LANCET.

SIR,—I propose that the army pay be £300 for ten years, with the rank of captain, and £1000 down on leaving at the expiration of the ten years. Also, that if the surgeon desires to remain in the service, he may do so on passing a minor examination in whatever subjects may then be considered necessary, and that not by competition, but to test his knowledge and usefulness in his department. While at Netley a surgeon's pay ought at least to be 7s. 6d. per day, and not 6s., which is simply filthy, and reflects great discredit on the above-mentioned folk. The rank of captain is one of the most essential matters you may have to consider.

I remain, Sir, yours &c.,
July, 1876. A SURGEON.

### Concentrated Solution of Salicylic Acid.

A CONCENTRATED solution of salicylic acid (which is only sparingly soluble in cold water) must be often desired by the medical practitioner. After many experiments, a pharmaceutist adopted the following form of preparation, which is given in the last number of the *Pharmaceutical Journal*:

℞ Acid. salicylic. pur., ʒij.
Sodii biborat., ʒj.
Glycerinæ, q. s.

Mix the acid and borax with f. ʒiv. glycerine, heat gently until dissolved, and then add enough glycerine to make the whole measure one fluid ounce. This solution contains 25 per cent. of salicylic acid, and can be diluted with either glycerine, alcohol, or water to any degree required.

THE letter of *Experience* (Calcutta) is somewhat too long for insertion.

### Quadruple Abortion.

*To the Editor of* THE LANCET.

SIR,—Quadruple births being of such rare occurrence, I thought a few particulars of a case of quadruple abortion, which has just occurred in my practice, might interest some of your readers.

On May 13th I was unexpectedly requested to attend Mrs. C—— immediately in her confinement. I had attended her in two natural labours and one premature within the last four years, and felt surprised at receiving the above message again so soon. I found, however, that my patient had aborted at about five months, judging from the appearance of the fœtal bodies and the mother's calculations. There were four in number, all females, and well formed. Two were said to have been born alive, and two dead. The mother, as I have frequently observed in plural cases, is a little, delicate woman. She has suffered much from chronic rheumatism during the last six months, and on the morning of her aborting she was trying to move her bedstead when she felt something give way in her body, and the pains of labour soon followed. On examining the placental structure, it appeared as though there was only one. If there were four, they were so close together, and intimately connected by vascular communications, that I did not observe the lines of separation. I have preserved the whole intact, and the specimen quite gives the appearance that all four cords are attached to one and the only placenta. Dr. Churchill's statistics of the frequency of plural births show that in 129,172 cases of accouchement in the Dublin Hospital, only one was a quadruplet; that in French practice he could record no one; and in German practice, out of 219,303 cases, only two quadruple births had taken place, according to Dr. Blache. This extraordinary rarity leads me to hope that the above recent case of quadruple abortion may be a little interesting to the profession.

I am, Sir, yours faithfully,
Diss, July, 1876. A. C. FARRINGTON.

### The Origin of Hindu Medicine.

SURGEON-GENERAL EDWARD BALFOUR, Madras Medical Department, has published a pamphlet, entitled "The Vydian and the Hakim: What do they know of Medicine?" destined for circulation among the people of India. The absence of all dates in the books of the Sanskrit writers hinders inquiry as to the progress of the medical art among the Hindus. Authentic information is obtainable, however, from the literature of Greece, that medicine was cultivated in India many centuries prior to the Christian era, and Dr. Balfour endeavours to compare the remedial methods in vogue in the earliest times with those now practised by native practitioners. The latter, we must add, suffer by the comparison.

### Health of Weston-super-Mare.

*To the Editor of* THE LANCET.

SIR,—In your issue of Saturday last you have inserted a paragraph on the health of Weston-super-Mare, wherein it is stated that the deaths for the past quarter were 36, including visitors. Allow me to make this slight correction—viz., that the deaths, including 4 visitors, were only 35.

I am, Sir, faithfully yours,
Weston-super-Mare, July 31st, 1876. C. VERNON HITCHINS, Medical Officer of Health.

*** We obtained the information from Mr. Hitchin's own report, published in a local paper.—ED. L.

*Spes.*—The first thing to be done is to pass the preliminary examination in Arts. A hospital should then be entered. With the scanty means at our correspondent's disposal, he will have to work very hard and practise the most rigid economy.

STOCKWELL SMALL-POX HOSPITAL.

*To the Editor of* THE LANCET.

SIR,—Small-pox being somewhat prevalent in the south of London at the present time, I think it incumbent on me to bring the following case before your notice.

On the 25th ult. I was called to see a Mrs. R——, and found her suffering from the usual premonitory symptoms of small-pox in a marked degree, with a temperature of 103·4°; but after careful examination failed to detect any trace of a rash. On the 26th, however, there was decisive evidence of an eruption beneath the skin on the face, neck, and upper and lower extremities, and a temperature of 103·2°. I then ascertained that she was unvaccinated, and that there had been a case of variola next door but one two or three weeks previous. At the request of the patient and her friends I gave a certificate, in order that she might be removed to the Stockwell Small-pox Hospital, and she was accordingly taken to that institution by the parish authorities. After having been duly examined by the medical officers, she was informed by them that her case was not one of small-pox, the eruption being merely *heat spots*, and the order for her admission endorsed, "Not sufficient evidence of small-pox." She was then sent back to her home.

Having been informed of her rejection at the hospital, I called the next day, again carefully examined the case, when her condition fully confirmed the opinion I had previously formed.

On the 28th I asked my friend, Mr. A. C. Air, to visit the patient with me, as the relatives were in considerable doubt as to the correctness of my diagnosis. He immediately coincided with my view, and advised me to see the medical officer of health of the district, which I did at once. This gentleman very kindly returned with me, and, agreeing in the opinion already formed by Mr. Air and myself, ordered her removal to the hospital for a second time.

Taking the above facts into consideration, would it not be advisable for the medical officers of such institutions to place all cases which *they consider doubtful* in "quarantine" until such time as all question may be removed?

Yours very truly,

W. GIBSON BOTT, L.R.C.P., &c.

Kennington-park-road, Aug. 1st, 1876.

ERRATA.—In our article on "Pass and Pluck at the Royal College of Surgeons," p. 157, col. i., line 10, for "lowering," read *raising*; col. i., line 8 from bottom, for "55," read 5·5; and col. ii., line 27, for "as low as," read "as *high* as."

COMMUNICATIONS not noticed in the current number will receive attention in our issue of the ensuing week.

COMMUNICATIONS, LETTERS, &c., have been received from — Dr. Tilt, London; Dr. Handfield Jones, London; Dr. Powell, London; Mr. Lambert; Mr. Torkington, Accrington; Mr. Cocks; Mr. L. D. H. Russell, Liverpool; Dr. Sheen, Cardiff; Mr. Morris; Mr. Long, Ipswich; Dr. Forbes, Glasgow; Mr. Aitken; Dr. Peart, North Shields; Mr. Elliott; Mr. Cray, Abergavenny; Mr. Johnston; Dr. Dane, Stafford; Dr. Clark, Folkestone; Mr. Scobell, Plympton St. Mary; Mrs. Hobson, Fareham; Mr. Preston, Wokingham; Mr. Elwin, Dover; Mr. Wilson, London; Mr. Magnus, London; Dr. Pearse; Viscount Malden; Dr. Elliot; Mr. H. C. Bartlett; Mr. Angus, New York; Mr. Scott, Birmingham; Mr. Barlow, Birmingham; Mr. Mortimer, New York; Mr. North, New York; Dr. Moorhead, Derby; Mr. Rose; Mr. Weekes, Southampton; Mr. Hardwicke, Saxlingham; Dr. Ward, Garnforth; Mr. M'Carthy, Leith; Mr. North, London; Dr. Easty, March; Dr. Hitchins, Weston-super-Mare; Mr. Marriott, Leamington; Dr. Williams, London; Mr. De Rozario, India; Mr. Harvey, London; Surgeon-Major Cuffe, Shoeburyness; Mr. Cannon; Dr. March, Battersea; Mr. Williams, Stoke; Mr. Burgess, Ottawa; Mr. H. Charles, Falmouth; Mr. W. H. Stephens, Towcester; Herr Carl Vogt, Munich; Mr. Evers, Dursley; Mr. Calton, Leith; Mr. King; Mr. Green, Salford; Mr. Stride, Brighton; Mr. Evans, West Bromwich; Mr. Havant, Bristol; Dr. Ritchie, Grimsby; Mr. J. Poyntz, Bolton; Mr. Anderson, Coventry; Dr. Gross; Mr. Parker, Bath; Dr. Wilson, Worcester; Mr. Lonsdale, Carlisle; Dr. Bott, London; Mr. Phelps, Freshwater; Mr. Wallun; The Board of Trade; B. A.; The Treasurer of Edinburgh University Club; Spes; University of London; The Dean of Owens College; A. B., Bristol; Medicus, Bristol; A Constant Reader; The Registrar-General of Edinburgh; J. C. W.; Omnia Sanitas; G. T. B.; &c. &c.

LETTERS, *each with enclosure*, are also acknowledged from — Dr. Young; Dr. Thompson, Peterborough; Mr. Yates, Leeds; Mr. Elliott; Mr. Hall, Liverpool; Messrs. Negretti and Zambra, London; Dr. Plomley, Maidstone; Mr. Godfrey, Northampton; Mr. Davis, Wreckenton; Dr. Sutcliff, Great Torrington; Mr. Kell, Merville; Messrs. Robinson and Knight, Rotherham; Messrs. Barnard and Co., Leith; Mr. Clampiss, Bootle; Mr. White, London; Mr. Broadbent, Liverpool; Dr. M'Enery, Cerne; Dr. Clark; Mr. Jones, Liverpool; Dr. Powell; Mr. King, Southampton; Dr. Little, Liverpool; Mr. Bakewell, All Stretton; Dr. Eberle; Mr. Hale, Chesterfield; Mr. Deacon; Mr. Parrott; Mr. Milligan, Wandsworth; Mr. Evans, Swansea; P. B. S.; D. H.; A. B., Barnsley; M.D., London; Delta, Leeds; Sigma; A. B., London; Medicus, Harrow-on-the-Hill; E. R., Darlaston; W. W., Maske-by-the-Sea; Medicus, Bridlington; R. L., Burton-on-Trent; Medicus; M.R.C.S., Tonbridge; B., Kingsbridge; Beta; W.; L. F. P. S.; J. J., Oxbaldwick; Medicus, London; Theta; A. B. C.; Gamma, Hackney; C. Y. Z.

*Broad Arrow, Liverpool Daily Post, Cork Constitution, Land and Water, Newcastle Daily Chronicle, Academy, Examiner, Pharmaceutical Journal, Welshman, Solicitors' Journal, Item* (Philadelphia), *Sunday Times*, and *Manchester Guardian* have been received.

## METEOROLOGICAL READINGS

*(Taken daily at 9 a.m. by Steward's Instruments.)*

THE LANCET OFFICE, AUG. 3RD, 1876.

| Date. | Barometer reduced to Sea Level, and 32° F. | Direction of Wind. | Wet Bulb. | Dry Bulb | Solar Radia. in Vacuo | Max. Temp. Shade | Min. Temp. | Rain-fall. | Remarks at 9 A.M. |
|---|---|---|---|---|---|---|---|---|---|
| July 28 | 29·77 | W. | 58 | 63 | 81 | 69 | 58 | ... | Overcast |
| " 29 | 29·93 | N.W. | 55 | 62 | 108 | 75 | 53 | 0·22 | Cloudy |
| " 30 | 29·98 | S.W. | 60 | 67 | 104 | 77 | 58 | ... | Cloudy! |
| " 31 | 29·69 | S.W. | 61 | 65 | 105 | 70 | 59 | 0·05 | Raining |
| Aug. 1 | 30·02 | N.W. | 51 | 59 | 108 | 70 | 49 | 0·27 | Cloudy |
| " 2 | 30·12 | S.W. | 58 | 64 | 109 | 73 | 53 | ... | Cloudy |
| " 3 | 29·47 | S.W. | 60 | 62 | ... | ... | 58 | 0·05 | Raining |

# Medical Diary for the ensuing Week.

### Monday, Aug. 7.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day and at the same hour.
ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

### Tuesday, Aug. 8.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.

### Wednesday, Aug. 9.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1½ P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

### Thursday, Aug. 10.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

### Friday, Aug. 11.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

### Saturday, Aug. 12.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.


## NOTICE.

In consequence of THE LANCET being frequently detained by the Post Office when posted for places abroad *more than eight days after* publication, subscribers and others are reminded that such copies can be forwarded only as book packets, and *prepaid* as such.

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